First Year Teacher Internship Program

Mt. SAC
Mt. San Antonio College

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Mt. San Antonio College
AGED 539, California Polytechnic State University
Spring Quarter, 2011
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AGED 539 Project – Program Promotion

Purpose

Promoting agricultural awareness and expressing its importance to our society is not an easy task. But events that engage the community and personalize the agriculture industry can help to diminish this lack of knowledge. However, to plan a successful event, the priority is to ensure that promotional activities have been conducted to effectively inform everyone, including but not limited to: students, parents, counselors, administrators, board members, community members, and business and industry representatives. Farm Day is an all-day extravaganza that not only highlights Mt. San Antonio College’s (Mt. SAC) amazing agricultural facilities and program, but also serves as a venue to educate more people regarding agriculture’s impact on their everyday lives.

Objectives:

- The main objective will be to create an event, Farm Day, which will include the animal science and horticulture departments. The public will be invited to tour our state-of-the-art facilities, and there will be an opportunity to explore the beef, sheep, swine and horse units, pastures, greenhouse and shade house space, an orchard, equipment shops and a variety of labs. Throughout the day informational sessions and demonstrations will be given by both the faculty and students of Mt. SAC’s Agricultural Department.

- I will need to obtain approval from the Agricultural Department & Facilities Management to use the school’s farm as a venue for the Farm Day event.

- I will need to obtain appropriate funding through the USDA Grant. This will allow for proper functioning of the Farm Day event.

- I will be the coordinator of Farm Day and I will organize the entire event, which includes everything from pre-planning to after event clean-up:
  - I will work with the Agriculture Department to come up with a schedule of events for Farm Day in which we will be hosting various agricultural demonstrations.
  - I will work with the 48th Agricultural District to promote and coordinate Farm Day.
  - I will work with the USDA Grant web designer to create a Farm Day Flyer to promote the event.
c I will work with the USDA Grant web designer to create a Brochure Packet to be handed out during the day of the event.

do I will work with our school's Agriculture Ambassadors to ensure the promotion of our Agriculture Program and our Farm Day event.

do I will communicate with our school's Marketing & Public Affairs Office to ensure further promotion of our Farm Day event:

- I will create an article to be submitted to the school and local newspapers.
- I will obtain permission to advertise the event on the marquee.
- I will request a photographer for the day of the event.

do I will create a student-based volunteer committee to help with organizing and managing Farm Day.
Step 1 – Organizing

The key to successful promotion is communication, and so before anything can be prepared, a meeting must be organized to discuss the arrangement and details of the event, Farm Day. First, there needs to be a unanimous decision for the date; the scheduled date must allow for enough time to promote and organize the event. At least a full year of both promotion and organization is strongly recommended to run a successful event, which is why Farm Day is an annual event at Mt. SAC. When selecting a day, avoid the beginning and end of academic terms as well as the exam periods. Student aid is extremely valuable for the event, but given that planning for student participation requires a few weeks, the event should take place more than several weeks after the beginning of the term; but students are unavailable during the middle and end of the terms due to midterms and finals, so Farm Day should also ideally be scheduled around exams. Furthermore, the hours for Farm Day must be considered, especially the duration of the event and any special considerations to the time of day for certain activities.

For an organized and functional event, a schedule must be arranged through a collective effort by the agriculture department, including what activities should be included in the event and who should be in charge of each activity. Typically, when organizing a Farm Day, the type of audience must be considered so as to develop appropriate activities to entice and engage the targeted audience; for example, if the majority attending the event will be children and young adults, then a “fun zone” with games and animals pertaining to agricultural education would be a great idea. Activities that are often organized for Farm Day at Mt. SAC include, but may not necessarily be limited to:

- Animal Demonstrations (Sheep Shearing, Cow Milking, Horse Lunging, etc.).
- Agricultural Displays (Check out the Tractor, Get Lost in the Hay, etc.).
- Games for Children (Face Painting, Pie Toss, etc.).
- Promotional Sales for Agricultural Products (Auction, Raffle, etc.).
- Facility Tours.
- BBQ Lunch.
Once the activities have been planned, a complete schedule including time and location must be prepared (see the following "Schedule of Activities"). The location for Farm Day itself should take place on the farm, and permission must be granted by the Agricultural Department & Facilities Management to use the school’s farm as the venue for the event. Activities should then be arranged at the proper sections of the farm, and each activity should also occur at the proper times and intervals so that in the case of multiple exhibitions, there is enough time to clean and set up for the next showing.
Schedule of Activities

Hay Ride Tours: Will Be Departing Every 30 minutes (Pick Up Location: Horse Barn)

- Agricultural Complex Tours: 10:00, 12:00, 2:00
- Police K-9 Demonstration: 9:00, 10:00, 11:00, 1:00, 2:00
- Horse Demonstration 1 Grooming: 9:00, 11:00, 1:00
- Horse Demonstration 2 Round Pen: 10:00, 12:00, 2:00
- Sheep Shearing Demonstration: 10:00, 12:00, 2:00
- Dairy Milking Demonstration: 10:00, 11:00, 12:00, 1:00, 2:00
- Give a Cow a Bath: 12:00
- Meet the Piglets: 9:30, 11:30, 1:30
- Visit the Garden Doctor: 9:00-1:00
- Plant Sale: All Day
- Check out the Tractor: All Day
- Get Lost in the Hay: All Day
- Face Painting: All Day
- Kids Fun Zone: All Day

BBQ Lunch Will Be Available From: 11:30-1:30

Group Leaders:

- Hay Tours: MATTHEW & BRIAN & DARLENE & DR. LINDY
- K-9 Police Demo: DARRYL
- Horse Demonstrations: JAIMIE, REBECCA, DONNIELLE
- Sheep Shearing Demo: DAWN & SHANNON
- Dairy Milking Demo: EFRON
- Give a Cow a Bath: AMALIA
- Meet the Piglets: ANTHONY
- Visit the Garden Doctor: JENNIFER & JESUS
- Check out the Tractor: JOSH
- Get Lost in the Hay: JAMES
- Face Painting: CHERYL
- Kids Fun Zone: STEFANO

- BBQ: TOM

- Set Up Crew: JAMIE, AG LIVE-ON’S & AG AMBASSADORS

- Clean Up Crew: JAMIE, AG LIVE-ON’S & AG AMBASSADORS

- Selling Tickets: ROCHELLE, CRYTAL & KRISTI
Step 2 – Funding

But Farm Day cannot be accomplished without considering the costs, and thus, funding is an important aspect for the proper functioning of the event. The USDA funds events pertaining to agriculture, such as Farm Day, which allows for the opportunity to invest into supplies needed for the promotion and operation of the event. But the USDA provides a variety of resources aside from financial funding, and the USDA Grant web designer can assist in the creation of promotional flyers and informative brochure packets.

However, if funding through the Grant is not approved or insufficient, fundraising is an alternate but effective method of obtaining funds. Raffling off products is a prevalent way to generate cash flow, but student clubs and support groups often support educational events such as Farm Day, and so they can also provide financial assistance. Local communities may also show an interest in Farm Day, and many are willing to sponsor the event or even donate money and resources. For example, a local restaurant can support the event by promoting a sponsorship, where a percentage of receipts from customers that dine during a certain time will be donated to the event; this method is mutually beneficial, generating business and publicity for the restaurant while funding the school’s event. But in the end, the minimum budget for Farm Day must be satisfied in some way, and if not, then certain aspects and activities must be removed to allow for the successful operation of the event.
Step 3 – Promoting

When all the features of Farm Day have been organized and approved, then the next step is to promote and publicize the event. The USDA and the 48th Agricultural District can assist in promoting the event, especially with the variety of resources at their disposal. But the majority of the promotion should be through the school’s resources, from working with the Agricultural Ambassadors to the Marketing & Public Affairs Office, a wide range of channels should be considered for successful promotion. An article that is both informative and appealing should be composed to be submitted to the school and local newspapers:

“Mt. San Antonio College Agricultural Sciences Department and the 48th Agricultural District are proud to present the 2nd annual Farm Day. Farm Day will be held at Mt. SAC’s School Farm on Saturday May 7, 2011, from 9:00am to 3:00pm. Farm Day is free and open to everyone! We encourage your family and friends to get down on the farm to explore the cattle, sheep, swine and horse units. In addition to the animals, we also have pastures, a greenhouse and shade house space, an orchard, equipment shops and a variety of labs. The day will include fun hay ride tours, a hay maze, multiple animal demonstrations and a minimal cost BBQ with drinks. Also, the horticulture unit will be having a giant plant sale. New to the farm this year will be a cow milking demonstration presented by the Dairy Council. Throughout the day, faculty and students will be available to give guided tours of our new Agriculture Complex. Come on out for a day of fun and see what the Ag Department has to offer!”

Flyers should be posted in public and commonly visited areas, such as classrooms, dormitories, dining areas, walkways, quads and atriums, to publicize Farm Day throughout the school and the community; word of mouth is the best method of promotion, and informing students, school clubs and committees is one of the most successful ways of promoting any event. Flyers must stand out and convey accurate information, including but not limited to the time and location of Farm Day, main highlights of the event, and catchy phrases that address the targeted audience (see the following “Flyer”). Large posters or signs in public places are also effective advertisements, and if the school has an announcement center or student message boards, then contact the supervisor and request for Farm Day to be announced and publicized; if the school has a marquee, then request that the event be displayed on the marquee. Technology is also one of the most successful channels of
promotion, so technological opportunities should be considered, such as email announcements sent to students with the school's permission. Promotional activities should also improve articulation with feeder schools, in this case, local elementary, junior high and high schools; information should be sent to the local schools to promote Farm Day as an educational event. However, one of the largest pieces to solving the advertisement puzzle is to inform the public that Farm Day is free for everyone – the word “free” is the most persuasive argument in convincing people to attend the event. Given that Farm Day is an annual event, hiring a photographer for the actual day of the event will add to future promotional material by providing visuals and examples of what Farm Day entails.
FARM DAY 2011
Fun for the whole family!!

Mt. San Antonio College
and the 48th Ag. District
1100 N. Grand Ave., Walnut, Ca 91789

Come and join us for some
Great Outdoor Activities.
• Farm tour • Hay rides • Games
• Visit horses, pigs, sheep & cattle!
• Bring your camera and take a photo with your favorite animal.
• Udder amazement...

GOT MILK?

Purchase a BBQ lunch made by
the Mt. SAC Ag Department.

It all happens May 7th,
2011 9:00am - 3:00pm at
Mt. SAC's School Farm.

Directions to the Mt. SAC School Farm.

FREE
& Everyone is Invited!
Step 4 – Operating

After the promotional materials have been prepared, then the actual brochure packet to be used during the event must be organized (see the following “Brochure”). The packet will be provided to everyone attending Farm Day, and therefore it must be informative and understandable. The packet should explain what the goal of Farm Day is, and titles and descriptions should be in an easily-read font and free of clutter. A clear map that encompasses the location of the event, including every area where each activity takes place, should be contained in the packet; the map must be simple but accurate, containing all the major landmarks of the farm. The hours of Farm Day should also be included, as well as the time(s) of each activity. With the descriptive brochure organized, then staff for the event should be assembled.

As the coordinator of Farm Day, one must be prepared to organize a reliable staff to assist in preparing for and operating the event. The best resource for assembling a staff is the student body, especially if extra credit in agricultural courses is offered to students who volunteer for Farm Day (see the following “Volunteer Sign-Up Sheets”). Students in the agriculture department are often dedicated to agricultural causes, and a student-based volunteer committee can provide assistance in the promoting, setting up, operating, and cleaning up of Farm Day. The committee should be used to help in offering ideas for new activities, and then to organize and manage each activity. The cost of hiring a staff to run Farm Day is eliminated, and the students are given the opportunity to engage in a program that allows them to understand the agricultural industry from behind the curtains.
Come Join Us!

May 7, 2011
9:00am-3:00pm

Agriculture is Everywhere!!

Fun for the whole family!!
Agricultural Awareness FARM DAY 2011

Agricultural Awareness

In the past century, agriculture has evolved into a major industry of food and fiber, contributing to the economy. The United States has long been a leader in agriculture, but this industry is now more diversified than ever before.

Currently, less than 2 percent of the U.S. population works in farming, but they supply food and animal products to the rest of the nation. Today, agriculture employs over 2 million American workers, continuing to provide jobs and income to the nation.

Fun Facts About Ag:

Over 54 billion dollars are spent by the average consumer on food produced on U.S. farms and ranches. Without farmers, we would not have the variety of food products available today.

Joke of the Day:
Q: Why did the corn stalk get mad at the farmer?
A: He kept pulling its ears!

Links for the Whole Family:
- www.farmfoodfun.com
- www.farmersfeedus.org
- www.ars.usda.gov
- www.fsis.usda.gov/Fact_Sheets
- www.YourFutureInAg.com

For more information about Agriculture, please visit YourFutureInAg.com

Fun for the Whole Family!!

Celebrating the Month of MAY:
- National Physical Fitness and Sports Month
- The Month of Asparagus
- National Strawberry Month

Schedule of Events:
- Hay Ride Tours Will Be Departing Every 45 Minutes
- Pick Up Location: Home Depot
- Agricultural Competitions: 10:30, 11:30, 2:00
- Petting Zoo Demonstrations: 9:00, 10:00, 11:00, 1:00, 2:00
- Horse Shows: 11:30, 12:30, 1:30
- Home Demonstration: 11:00, 11:30, 12:00, 1:30, 2:00
- Sheep Shearing: 10:00, 11:00, 12:00, 1:00, 2:00
- Dairy Milking: 9:30, 10:30, 11:30, 12:30, 1:30
- Visitor Center: 11:00, 12:00
- Visit the Gardens: 9:00-1:00
- Petting Zoo: All Day
- Check out the Hayride: All Day
- Visit the Museum: All Day
- Face Painting: All Day
- Kids Fun Zone: All Day

BBQ lunch will be available 11:30-1:30pm.
# Volunteer Sign-Up Sheets

## Farm Day Volunteer Sign-Up Sheet (May 6-7, 2011)

<table>
<thead>
<tr>
<th>Job/Activity</th>
<th>Name</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Set Up Crew May 6: Jamie Phillips</td>
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<td>5:00PM-6:00PM (10 Volunteers)</td>
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<td>Set Up Crew May 7: Jamie Phillips</td>
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<td>8:00AM-9:00AM (5 Volunteers)</td>
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## Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

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<tr>
<th>Job/Activity</th>
<th>Name</th>
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<tbody>
<tr>
<td>Sheep Shearing: Dawn Waters &amp; Shannon Deskin</td>
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<td>10:00AM</td>
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<td>12:00PM</td>
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<td>2:00PM</td>
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<td>Give a Cow a Bath: Amalia Williams</td>
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<td>12:00PM</td>
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<tr>
<td>Meet the Piglets: Anthony Huerta</td>
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<td>9:30AM-11:30AM</td>
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<td>11:30AM-1:30PM</td>
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<td>1:30PM-3:00PM</td>
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# Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

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<th>Job/Activity</th>
<th>Name</th>
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<tbody>
<tr>
<td><strong>Agriculture Complex</strong></td>
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<tr>
<td>Tours: Britnee Andrzejewski &amp; Donald Volz</td>
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<td><strong>10:00-11:00</strong></td>
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<td><strong>12:00-1:00</strong></td>
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<td><strong>Visit the Garden</strong></td>
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<td>Doctor/Plant Sale: Jennifer Garwick &amp; Jesus Ramirez</td>
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<tr>
<td><strong>Kids Fun Zone:</strong></td>
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<tr>
<td><strong>Stefano Gaitan</strong></td>
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<td>Lasso the Animal (Game)</td>
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<td>9:00AM-12:00PM</td>
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<td>12:00PM-3:00PM</td>
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<td>Win a Goldfish! (Game)</td>
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<td>12:00PM-3:00PM</td>
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<tr>
<td>Fishing for Ducks! (Game)</td>
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<td>Face Painting: Cheryl Weiss</td>
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<td>12:00PM-3:00PM</td>
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<td>Check out the Tractors: Josh Muscat</td>
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<td>Get Lost in the Hay: James Weeks</td>
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<th>Job/Activity</th>
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<tr>
<td>BBQ: Tom Viscsky</td>
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<td>11:00-2:00 (15 Volunteers)</td>
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**Job/Activity:** Clean up Crew May 7:

**Jamie Phillips**

**Time:** 3:00PM-5:00PM

**(10 Volunteers)**
## Farm Day Volunteer Sign-Up Sheet (May 6-7, 2011)

<table>
<thead>
<tr>
<th>Set Up Crew May 6: Jamie Phillips</th>
<th>Name</th>
<th>Time In</th>
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<tbody>
<tr>
<td>5:00PM-6:00PM</td>
<td>1 April Moorer</td>
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<tr>
<td>(10 Volunteers)</td>
<td>2 Colleen Barrett</td>
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<td>3 Karina Nava</td>
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<td>4 Samantha Eccles</td>
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<td>5 Kimberly Castro</td>
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<td>6 Heather Moffitt</td>
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<td>7 Adrian Zaltoni</td>
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<td>8 Katie Clark</td>
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<td>9 Braden Patterson</td>
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<td>10 Renee Brown</td>
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<thead>
<tr>
<th>Set Up Crew May 7: Jamie Phillips</th>
<th>Name</th>
<th>Time In</th>
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<tbody>
<tr>
<td>8:00AM-9:00AM</td>
<td>1 Samantha Eccles</td>
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<tr>
<td>(5 Volunteers)</td>
<td>2 Eilza Garcia</td>
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<td>3 Samantha Mendoza</td>
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<td>4 Maribel Hernandez</td>
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<td>5 Valerie Wilson</td>
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# Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

<table>
<thead>
<tr>
<th>Job/Activity</th>
<th>Name</th>
<th>Time In</th>
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<tbody>
<tr>
<td><strong>Sheep Shearing:</strong> Dawn Waters &amp; Shannon Deskin</td>
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<tr>
<td>10:00AM</td>
<td>1 Samantha Eccles</td>
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<td></td>
<td>2 Tina Teng</td>
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<td>12:00PM</td>
<td>1 Natalie Verdugo</td>
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<td></td>
<td>2 Cassie Ochoa</td>
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<td>2:00PM</td>
<td>1 Blanca Lopez</td>
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<td></td>
<td>2 Tiffany Argomaniz</td>
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<tr>
<td><strong>Give a Cow a Bath: Amalia Williams</strong></td>
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<td>12:00PM</td>
<td>1 Youjin Kim</td>
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<td></td>
<td>2 Ashley Kopaskie</td>
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<tr>
<td><strong>Meet the Piglets: Anthony Huerta</strong></td>
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<td>9:30AM-11:30AM</td>
<td>1 Lori Phifer</td>
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<tr>
<td>11:30AM-1:30PM</td>
<td>1 Jacquelin Becerra</td>
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<tr>
<td>1:30PM-3:00PM</td>
<td>1 Kimberly Heath</td>
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## Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

<table>
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<tr>
<th>Job/Activity</th>
<th>Name</th>
<th>Time In</th>
<th>Time Out</th>
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<tbody>
<tr>
<td><strong>Agriculture Complex Tours:</strong> Britnee Andrzejewski &amp; Donald Voltz</td>
<td>1 Glen Eccles</td>
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<td>2 Gad Mata</td>
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<td><strong>10:00-11:00</strong></td>
<td>1 Christina Rawson</td>
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<td></td>
<td>2 Jocelyn Navarro</td>
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<tr>
<td><strong>12:00-1:00</strong></td>
<td>1 Glen Eccles</td>
<td></td>
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<tr>
<td><strong>2:00-3:00</strong></td>
<td>2 Gloria Berger</td>
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<tr>
<td><strong>Visit the Garden Doctor/Plant Sale:</strong> Jennifer Garwick &amp; Jesus Ramirez</td>
<td>Name</td>
<td>Time In</td>
<td>Time Out</td>
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<tr>
<td>9:00AM-3:00PM</td>
<td>1 John Reynolds</td>
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<tr>
<td>Job/Activity</td>
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<tr>
<td>Lasso the Animal (Game)</td>
<td>9:00AM-12:00PM</td>
<td>12:00PM-3:00PM</td>
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<tr>
<td>1: Pam Bartlett</td>
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<td>2: Alessandra Duran</td>
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<td>1: Elisa Garcia</td>
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<td>2: Linda Uriarte</td>
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<tr>
<td>Win a Goldfish (Game)</td>
<td>9:00AM-12:00PM</td>
<td>12:00PM-3:00PM</td>
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<tr>
<td>1: Alexandra Rosales</td>
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<td>2: Robin Oyden</td>
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<tr>
<td>Fishing for Ducks! (Game)</td>
<td>9:00AM-12:00PM</td>
<td>12:00PM-3:00PM</td>
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<tr>
<td>1: Kristi Peery</td>
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<td>2: Amanda Jones</td>
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<td>1: Melanie Boza</td>
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<td>2: Andrea Salgado</td>
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Notes: Kids Fun Zone: Stefano Galien
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<tr>
<th>Job/Activity</th>
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<tbody>
<tr>
<td>Face Painting: Cheryl Weiss &amp;</td>
<td>9:00AM-12:00PM</td>
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<tr>
<td>Rachel Shelton</td>
<td></td>
<td></td>
<td>1 Alma Baez</td>
<td>Time Out</td>
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<tr>
<td>Check out the Tractors:</td>
<td>12:00PM-3:00PM</td>
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<tr>
<td>Josh Muscat</td>
<td>Time In</td>
<td></td>
<td>2 Michelle Cote</td>
<td>Time Out</td>
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<td>Get Lost in the Hay:</td>
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<tr>
<td>James Weeks</td>
<td>1 Emily Acevedo</td>
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<td>1 Magaly Lopez</td>
<td>12:00PM-3:00PM</td>
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<tr>
<td>2 Cord McLuckey</td>
<td>9:00AM-12:00PM</td>
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<tr>
<td>1 Janeth Cardier</td>
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<td>2 Timothy Young</td>
<td>Time Out</td>
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<td>2 Corn McLuckey</td>
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# Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

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<th>Job/Activity</th>
<th>Name</th>
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<tr>
<td>BBQ: Tom Visosky</td>
<td>1 Lisa Rose</td>
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<td>2 Rebecca Cantu</td>
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<td>3 David Luna</td>
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<td>4 Carla Castro</td>
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<td>5 Stephanie Nupia</td>
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<td>6 Serina Ortiz</td>
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<td>7 Diana Cruz</td>
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<td>8 Neira Sanchez</td>
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<td></td>
<td>9 Tobias Patina</td>
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<td>10 Karina Nava</td>
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<td>11 Elim Zavalza</td>
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<td>12 Darlene Alvarez</td>
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<td>13 Priscilla Munoz</td>
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<td>14 Mariana Gonzalez</td>
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<td>15 Arriana Mena</td>
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## Farm Day Volunteer Sign-Up Sheet (May 7, 2011)

### Job/Activity

- **Clean up Crew May 7:**
  - Jamie Phillips

### Time Slot: 3:00PM-5:00PM

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>1 Kimberly Alcantar</td>
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<tr>
<td>2 Florinda Kasten</td>
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<td>3 Anni Kasten</td>
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<td>4 Samantha Eccles</td>
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<td>5 Elisa Garcia</td>
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<td>6 Diana Cruz</td>
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<td>7 Alexandra Rosales</td>
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<td>8 Jamie Williams</td>
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<td>9 Viki Martinez-Canales</td>
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<td>10 Nicole Alvarez</td>
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QUALITY CRITERIA #1 – INSTITUTIONAL MISSION

A. Program’s/Department’s planning and decision making is consistent with the college mission statement and is documented in the Agriculture/Natural Resources self-study process.

- Our college mission, vision, & core values are as follows:
  - Mission Statement:
    - The mission of Mt. San Antonio College (Mt. SAC) is to welcome all students and to support them in achieving their personal, educational, and career goals in an environment of academic excellence.
  - Vision Statement:
    - Mt. SAC strives to be regarded as one of the premier community colleges in the nation. We will be viewed as a leader in community college teaching, programs, and services.
  - Core Values
    - Integrity: We treat each other honestly, ethically, and responsibly in an atmosphere of trust.
    - Diversity: We respect and welcome all differences, and we foster equal participation throughout the campus community.
    - Community Building: We work in responsible partnerships through open communication, caring, and a cooperative spirit.
    - Student Focus: We address the needs of students and the community in our planning and actions.
    - Lifelong Learning: We promote the continuing pursuit of high educational goals through equal access to excellence in both teaching and support services.
    - Positive Spirit: We work harmoniously, show compassion, and take pride in our work.

B. The program/department evaluates and revises its mission statement on a regular basis.

- Our department’s mission statement consists of Horticulture and Animal Sciences:
  - The mission of the Mt. San Antonio College Animal Science Program is to:
    - Provide students the opportunity to develop employable skills.
    - Provide students the opportunity to develop critical thinking skills.
    - Encourage, promote and exemplify a passion for the world of agriculture.
    - Commemorate the learning process and success of our students.
  - The mission of the Mt. San Antonio College Ornamental Horticulture Program:
    - To encourage and promote a passion for the world of plants.
    - To develop employable skills.
    - To teach the skills of critical thinking and foster life-long learning.
    - To celebrate the learning process and success of our students.

Each month everyone in the department meets to make sure we are addressing our school’s mission statement, which directly aligns with our department’s mission statement. We evaluate our program as a whole and strive to maintain our core values for the benefit of our students. At the beginning of each year we set goals as a department and then
individually as well. During every monthly meeting we report on the progress we have made throughout the year and
together we make decisions on what areas we need to improve on as a department.

Furthermore, at least three times a year we sit down as a department and work on our Planning for Institutional
Effectiveness (PIE). PIE is a program that allows us to annually evaluate our departments program and make sure that we
are staying true to our mission statement and keeping aligned with our standards of teaching. During each PIE meeting
we work on our Student Learning Outcomes (SLOs), Administrative Unit Objectives (AUOs), and our General Education
Outcomes (GEOs).

Our department can measure its institutional effectiveness through a continuous cycle of planning, assessing, and
improving set in motion by measurable college goals (designed for problem solving or quality improvement) that are
derived from the college mission. Based on the college’s mission statement, planning involves deciding the college's
focus/priorities, setting institutional goals, developing institutional/departmental strategies, outlining tasks and creating
schedules to measure if the goals are reached, evaluating the outcome and doing it all again (i.e., think, plan, do, and
evaluate cycle). In order to evaluate a college's effectiveness, it is important to start at the unit/office/department level
first. The Planning for Institutional Effectiveness (PIE) process at Mt. SAC is used to document the efforts at various
levels (i.e. unit/office/department, division, area).

Learning expectations are stated in the form of student learning outcomes (SLOs) and service expectations in the form
of administrative unit objectives (AUOs). SLOs are broad statements about what students will think, know, feel or be
able to do as a result of an educational experience. AUOs are statements about either what clients will experience, receive
or understand as a result of a given service or what the unit can provide, improve, increase or decrease. In order to
determine whether these expectations have been met, an assessment is performed.

Assessment is the continuous process of collecting, evaluating, and using information to determine if and how well
performance matches learning or service expectations. For assessment to be truly effective, it must be meaningful,
reflective, and self-regulated. The purpose of assessment is to use the results, positive or negative, to stimulate
meaningful dialogue about how instruction and instructional and non-instructional services can be modified to engage
students in the learning process and sustain institutional effectiveness. Institutional effectiveness reflects how well the
department is meeting its mission and goals. The mission of Mt. SAC is “to welcome all students and to support them in
achieving their personal, educational, and career goals in an environment of academic success.” One of the ways we as a
department can determine if and how well our mission has been achieved is through the process of assessment,
specifically through SLOs and AUOs.

In short, assessment of SLOs aims to provide data to fuel conversations about what is taught, how it’s taught, and how
students will best benefit from their educational experiences. Assessment of AUOs encourages conversations about what
services are provided, how they are provided, and how clients will best benefit from the services. Through these continual
assessments we are then able to make the necessary changes to our specific coursework, which enhances the program as a whole.

This continual type of program review allows us to stay true to our overall college mission, vision and core values, which ensures that we are abiding to our department’s mission statement and maintaining our commitment to educate our students.
Selected Unit: Agricultural Sciences

Agricultural Sciences > Assessment Unit > General

Assessment Unit Name: 

Mt. SAC Mission Statement: 
The mission of Mt. SAC is to welcome all students and support them in achieving their personal, educational, and career goals in an environment of academic excellence.

Department Mission Statement: 
The Agricultural Sciences Team at Mt. SAC is committed to:
- Training: Developing Employable Skills
- Educating: Teaching the skills used in critical thinking
- Inspiring: Encouraging and promoting the passion for the world of agriculture

College Goals Linked to Accomplishments:
1. Improve Career/Vocational Training
2. Complete the Agriculture Complex
3. Ag Literacy Trail planning was started and we have secured some funding for the project
4. We hired a Farm Supervisor, Matthew Pawlak, to manage the farm

Previous Year Accomplishments:
1. Secure Funding

2) College Goals Linked to Accomplishments:

2009-10 External Conditions:
VTEA grant
USDA grant
Donations for Ag literacy trail and scholarships

3) Previous Year Accomplishments:

Is assessment ongoing and used to improve learning: 
Yes

Provide a few sentences to explain your response: 
We set a standard for improving our classes, and there is constant discussion between TracDat and not very user friendly, so some faculty have difficulty using the program for assessment. CTE Programs automatically assess by their nature. There are not enough hours to spend the time that documenting assessment takes, so release time or some other time consideration is necessary to allow faculty to keep up with the

2. We need to meet the requirements of the industries that we serve, as defined by our advisory committees (Registered Vet Tech / Animal Science, and Horticulture).
3. Some students are overprepared for even beginning program courses, and are
Selected Unit: Agricultural Sciences

Agricultural Sciences > Assessment Unit > General

2009-10 External Conditions:
- Our advisory committees (Registered Vet Tech / Animal Science, and Horticulture).
- Some students are underprepared for even beginning program courses, and are not successfully completing courses because of lack of foundational knowledge.
- Marketing needs: we need to reach our market more effectively and consider new markets.

2009-10 Internal Conditions:
- We do not have a clearly defined idea of what our students' educational goals are.
- Ability to obtain necessary facilities and equipment for proper instruction.

2010-11 External Conditions:
- We need to meet the requirements of the industries that we serve, as defined by our advisory committees (Registered Vet Tech / Animal Science, and Horticulture).
- Some students are underprepared for even beginning program courses, and are not successfully completing courses because of lack of foundational knowledge.

2010-11 Internal Conditions:
- Marketing needs: we need to reach our market more effectively and consider new markets.
- We do not have a clearly defined idea of what our students' educational goals are.
- Cost to maintain CTE laboratories (farm facilities, labor, equipment) that are...

Type of Parameter Being Examined:
- Staffing Levels/Workload

Data Source / Findings / Impact:
- Classified positions (Horticulture Production Assistants, Animal Production Specialist, Horse trainer, RVT) need to be filled. The fact that these positions are not filled is negatively impacting our student labor budget, which is already insufficient. Student laborers are doing the tasks that should be done by these.
- There is no set budget, therefore we cannot effectively plan for next year.
- We have had to cut sections of courses due to budget restraints.
- There is no budget for us to fill our open classified positions.
- Outbuildings such as the Raptor rehab center, the Tack barn, the dog kennels...

Describe plans for 2010-11 given budget conditions:
- We are reducing supplies used for laboratory classes and reducing farm labor in order to meet short term budget goals, but these changes are not sustainable in the long run. Faculty are already overextended but are still giving as much as possible. It will be impossible to make the needed cuts without impacting student...

See Appendix A – Guidebook for SLO and AUO
QUALITY CRITERIA #2 – PROGRAM INTEGRITY

A. The program/department maintains current, relevant instruction in Agriculture/Natural Resources as evident by the up-to-date course outlines that have been approved by the local curriculum process and the board of trustees.

B. The program has integrated statewide course curriculum for applicable courses taught at the institution. These courses have been adopted by the local curriculum process and board of trustees.

- The college has a standard four-year curriculum review cycle.
  - Departments receive letters from the curriculum committee, with information about which courses will need to be reviewed for the upcoming year.
  - These curriculum revisions are done by the professor or faculty, who are teaching the course at the present time.
  - The curriculum must be submitted by early fall. The curriculum then undergoes a five stage approval process in order to be implemented for the following year.

Each department member is responsible for their individual curriculum approvals. Over the years, I have taught a variety of Animal Science courses, and therefore, have been responsible for updating some of the department’s curriculum. Thus far, I have updated: Beef Production, Livestock Judging & Selection, and Artificial Insemination of Livestock. In the future I will be responsible for updating Animal Science and Animal Handling & Restraint. For all of my curriculum updates I use the standard guidelines set by the California Community College Agriculture and Natural Resources Collaborative Web Page. This web page has the Statewide Standardized Postsecondary Agriculture Curriculum and Articulation Model. From this site I can look up the California Articulation Number - CAN System, which allows me to view current up-to-date curricula. I then use this model set to help update my departments curricula, therefore, keeping the entire program up-to-date with state standards. Once I have revised my curriculum and made any necessary changes I submit it to our department to begin the approval process. I can continually check the curriculum update progress by viewing my curricula proposals on our school’s WebCMS site. If there are any further changes that need to be made during the five stage approval process, I am able to refer back to the style sheet of local course review practices set forth by the college. At this time I make any final adjustments to the curriculum and then it can be approved and put in place for the following year.
### C-ID Number Descriptor for Agriculture

**Discipline:** Agriculture  
**Sub-discipline:** Animal Science  
**General Course Title:** Beef Cattle Science  
**Min. Units:** 3 Semester  
**C-ID Number:** AG-AS 108L (2004)  
**Proposed Suffix:** L

#### Course Description:

Study of the principles and practices of purebred and commercial beef cattle production throughout the World, United States and California; emphasis on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and recordkeeping to ensure scientifically-based management decisions and consumer product acceptance as applied to beef cattle. Laboratory required. (C-ID AG-AS 108L)

#### Required Prerequisites or Co-Requisites

#### Advisories/Recommended Preparation

#### Course Objectives: *At the conclusion of this course, the student should be able to:*

- Discuss the history and development of the beef industry.
- Identify beef breeds and their adaptability to climatic conditions and type of operations.
- Describe the common systems of beef production.
- Explain the principles of genetics in terms of form and function in the beef industry.
- Define the relationship between the consumer, packer, and retailer in the commercial beef industry.
- Explain grading systems and marketing strategies.
- Identify common diseases and parasites and the current methods of prevention and treatment.
- Explain the principles involved with ruminant nutrition in beef production.
- Demonstrate the use of computer management systems to efficiently manage beef cattle operations.
- Discuss animal welfare issues, environmental concerns and the beef cattle quality assurance program.
- Discuss career opportunities and requirements for successful employment.
- Identify cultural influences on the beef industry.

#### Course Content:

1. **The Beef Cattle Industry**
   - a. Origin and importance of beef cattle
   - b. Breeds of cattle
   - c. Ethnic contributions

2. **Systems of Production**
   - a. Purebred enterprise
   - b. Cow/calf operations
   - c. Stocker operations
   - d. Feedlot operations

---

1 Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

2 Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.
3. Establishing the Beef Herd
   a. Selecting the breed and breeding system
   b. Selecting the foundation stock
      (1) Type and conformation
      (2) Pedigrees
      (3) Performance data

4. Beef Cattle Management Practices
   a. Care and management of the breeding herd
   b. Beef animal preparation for seed stock sales
   c. Buildings and equipment

5. Beef Cattle Genetics
   a. Principles of beef cattle genetics
   b. Percentage of heritability of beef traits
   c. Economically important beef traits

6. Beef Cattle Nutrition
   a. Digestion and utilization of feed
   b. Nutrient requirements for beef cattle
   c. Rations for beef cattle
   d. Range management

7. Herd Health
   a. Common diseases of cattle
   b. Control of parasites
   c. Poisonous plants that affect cattle

8. Marketing Beef Cattle
   a. Marketing purebred and commercial cattle
   b. USDA yield and quality grades
   c. Beef cattle production cycles

9. Issues and Regulations in the Beef Cattle Industry
   a. Animal/welfare issues
   b. Quality assurance program
   c. Environmental issues

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

<table>
<thead>
<tr>
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</tbody>
</table>
Typical Textbooks, Manuals, or Other Support Materials


**Cow-Calf Management**, Cooperative Extension

**Drovers Journal**, (magazine)


<table>
<thead>
<tr>
<th>Statewide Articulation: Formally CAN AG 20 CPSLO-221, CPP-not articulated, CSUF-A SCI 21, CSUC-ANSC 171, other universities as lower division elective</th>
</tr>
</thead>
</table>

| FDRG Lead Signature: | Date: |
| Mark E. Bender, PhD CSU Stanislaus |

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<tr>
<th>[For Office Use Only]</th>
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</table>

### C-ID Number Descriptor for Agriculture

**Discipline:** Agriculture  
**Sub-discipline:** Animal Science  

<table>
<thead>
<tr>
<th>General Course Title: Livestock Selection and Evaluation</th>
<th>Min. Units: 3 Semester</th>
</tr>
</thead>
</table>

**C-ID Number:** AG-AS 148L (2004)  
**Proposed Suffix:** L

**Course Description:**

Detailed analysis of visual, analytical, and physical methods of appraising beef, sheep, swine and horses concerning functional and economic value; written and oral summaries of evaluation; specific reference made to performance data and factors determining carcass value. Laboratory required. (C-ID AG-AS 148L)

**Required Prerequisites or Co-Requisites**

**Advisories/Recommended Preparation**

**Course Objectives:** At the conclusion of this course, the student should be able to:

- Identify common breeds of livestock.
- Discuss the process of meat animal growth, development and finishing.
- Demonstrate how to combine "eyeball" or subjective evaluation with objective methods of evaluation (production records, etc.).
- Define traits needing improvement in a breeding herd.
- Identify traits most economically important.
- List traits that cannot be greatly altered through selective breeding.
- Illustrate an animal's performance potential and select the most efficient animals for marketability.
- Identify the factors that affect carcass quality and yield grades.
- Describe and compare animals with proper livestock terminology in both oral and written form.
- Develop and hone the power of observation and memory.
- Organize classes of live animals based on economically important traits.
- Identify external, anatomical features of livestock.
- Identify anatomical points on the live animal analogous to the areas of the carcass.
- Discuss the importance of livestock evaluation within various career opportunities.

**Course Content:**

1. **Introduction to Evaluation**
   a. Importance to rancher or farmer
   b. Importance to the feedlot operator
   c. Importance to the meat buyer
   d. Importance to 4-H leader and FFA advisor

2. **Growth, Development, and Fattening of Meat Animals**
   a. What is growth?
   b. The growth curve
   c. Growth and development of bone, fat and muscle
   d. Physiological age

---

3 Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

4 Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.
e. Effects of size or body type and sex on growth
f. Relative lean-to-fat ratio by species and sex
g. Criteria used to evaluate growth

3. Livestock Improvement through Selection
   a. Major factors affecting rate of improvement
      (1) Heritability
      (2) Accuracy of records
      (3) Selection of differential selection systems
      (4) Tandem
      (5) Independent culling
      (6) Selection index

4. Supplement Aids in Livestock Evaluation
   a. Weight
   b. Frame size
   c. Linear measurements
   d. Body type score
   e. Performance testing
   f. Contemporary index or ratios
   g. Backfat probe and ultrasonic instruments

5. Live Market Hog Evaluation
   a. Terms
   b. Percentage carcass muscle
   c. Live hog grading
   d. Pork carcass evaluation
   e. Yield of lean cuts

6. Breeding Swine Evaluation
   a. Skeletal correctness
   b. Size and scale
   c. Capacity
   d. Muscle and leanness
   e. Underlines and sex character

7. Live Market Cattle Evaluation
   a. Terms
   b. Weights and dressing percentage
   c. Fat thickness
   d. Ribeye area
   e. Quality grades
   f. Yield grades
   g. Market classes and grades of cattle

8. Evaluation of Beef Cattle Performance Data
   a. Reproductive performance
   b. Mothering ability
   c. Conformation score
9. Visual Evaluation of Breeding Beef Cattle
   a. Structural correctness
   b. Sex and breed character
   c. Size and scale
   d. Muscle
   e. Capacity and condition

10. Live Market Lamb Evaluation
    a. Terms
    b. Weights and dressing percentage
    c. Fat thickness
    d. Quality grades
    e. Yield grades
    f. Market classes and grades
    g. Determination of maturity and classes

11. Evaluation of Sheep Performance Data
    a. Ewe and lamb index
    b. Growth rate
    c. Wool production

12. Visual Evaluation Breeding Sheep
    a. Skeletal correctness
    b. Frame
    c. Capacity
    d. Body composition
    e. Head, neck and shoulders
    f. Breed character and fleece

13. Horse Evaluation
    a. General considerations
    b. Way of going
    c. Quarter-horse type

14. Selection of Feeder Livestock
    a. Feeder pig selection
       (1) Grade
       (2) Health
       (3) Structural soundness and ideal type
    b. Feeder cattle selection
       (1) Age and weight groups
       (2) Grades
       (3) Frame size
       (4) Body condition
    c. Feeder lamb selection
       (1) Grades
       (2) Body types and weights

15. Scoring System for Keep-Cull Classes
Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

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Typical Textbooks, Manuals, or Other Support Materials


ISBN 0-8403-7609-X.

Statewide Articulation: CPSLO-DSCI 241, CSUF-A SCI 81, UCD-ANS 21/22, other universities as lower division elective

FDRG Lead Signature: Date:

Mark E. Bender, PhD CSU Stanislaus

[For Office Use Only] Internal Tracking Number
C-ID Number Descriptor for Agriculture

<table>
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<tr>
<th>Discipline: Agriculture</th>
<th>Sub-discipline: Animal Science</th>
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<tr>
<td>General Course Title: Animal Breeding and Reproduction</td>
<td>Min. Units: 3 Semester</td>
</tr>
</tbody>
</table>

Course Description:

The study of basic genetic principles combined with the study of the anatomical and physiological aspects of reproduction as they relate to animal species significant to agriculture. Genetic principles emphasized include: basic inheritance, selection techniques, mating systems, heterosis, and performance evaluation. Reproductive aspects include endocrinology, estrous cycles, mating behaviors, gametogenesis, conception, gestation, parturition, and maternal behaviors. Artificial insemination, embryo manipulation, and current innovations in productive biotechnology are examined. Laboratory required. (C-ID AG-AS 156L)

Required Prerequisites or Corequisites

Advisories/Recommended Preparation

Course Objectives: At the conclusion of this course, the student should be able to:

- Discuss the concepts of gene frequency, alleles, homozygosity, heterozygosity, dominance, co-dominance, and recessive genes.
- Compare and contrast artificial and natural selection.
- Determine the possible genetic and phenotypic ratios for two traits, resulting from the mating of two heterozygous individuals, by using the Punnet Square method.
- Describe the effect of heritability on selection progress for individual traits.
- Interpret EPD's, ratios, breeding values, and indexes for use in sire selection.
- Explain the mating concepts of inbreeding, linebreeding, outcrossing, and crossbreeding.
- Explain the physiological functions of the major anatomical points of the male and female reproductive tracts.
- Describe the origin and function of the major hormones, both male and female, involved in reproduction.
- Describe the physical and behavioral expressions of estrus.
- Explain the anatomical and physiological aspects of conception, implantation, and gestation.
- Compare and contrast various methods of pregnancy detection.
- Describe the correct fetal position, delivery process, approximate timeline and maternal behaviors for a normal parturition.
- Identify factors that may contribute to dystocia.
- Explain the advantages and limitations of artificial insemination.
- Analyze the significance and benefits of innovations in reproductive biotechnology, such as cloning and the splitting, sexing, storing and transfer of embryos.

Course Content:

1. Basic Genetic Principles
   a. Genes
   b. Genotype and phenotype

---

5 Prerequisite or corequisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

6 Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.
c. Heritability

d. DNA and RNA

2. Mating Concepts
   a. Purebred systems, inbreeding, linebreeding and outcrossing
   b. Heterosis
   c. Crossbreeding systems; two-breed, rotational, terminal, rotaterminal

3. Selection Methods
   a. Artificial and natural selection
   b. Production and performance records
   c. Expected progeny difference (EPD's)

4. Male Reproductive Anatomy and Physiology
   a. Male reproductive tract
   b. Male hormones
   c. Behavioral aspects
   d. Semen evaluation

5. Female Reproductive Anatomy and Physiology
   a. Female reproductive tract
   b. Female hormones
   c. Estrous cycles and ovulation
   d. Estrus expression

6. Gestation and Parturition
   a. Conception and implantation
   b. Fetal development
   c. Pregnancy detection/fetal examination
   d. Parturition

7. Artificial Insemination
   a. Advantages and limitations
   b. Equipment and facilities
   c. Semen storage and quality
   d. Techniques utilized

8. Reproductive Biotechnology
   a. Embryo manipulation
   b. Cloning
   c. New innovations

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.
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Typical Textbooks, Manuals, or Other Support Materials


**Reproduction in Farm Animals, 6th ed.**, Hafez, E.S.E., Lea & Febiger, 1993

Statewide Articulation: CPSLO-ASCI 211, CPP-AVS 404*, CSUF-A SCI 71, UCD-ANS 120, other universities as lower division elective (*upper division – subject matter competency determined by university advisor)

FDRG Lead Signature: ____________________________ Date: ____________

Mark E. Bender, PhD CSU Stanislaus

[For Office Use Only] Internal Tracking Number
WebCMS Start Page

WebCMS is a Web Application that helps colleges automate their curriculum proposal/approval process.

Public Access
This area of WebCMS gives public Web site visitors and other college/universities access to your college's course information. All classes offered by the college are searchable by course department and course number. The public also has access to dynamically linked IGETC and CSU lists.

Admin Access
The back-end of WebCMS is where proposals are created and approved. Course proposals are supported.

Additional Resources

Tutorials
Tutorials that describe how to perform basic functions.

System Requirements

My Proposals

User: Jamie Sakugawa (jsakugawa) Stage: Faculty

To view or print a proposal, click on the proposal name (hyperlinked).

<table>
<thead>
<tr>
<th>Proposal Name</th>
<th>Type</th>
<th>Action</th>
<th>Last Revised</th>
<th>Stage #</th>
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</table>

Legend

- The icon indicates that the proposal has been returned to a previous stage. Click it to see why.
- Click this icon to see data for the proposal.
- Click this icon to see an email for the proposal.
SECTION A – Course Information

1. Course ID: AGLI 30
2. Course Title: Beef Production
3. Division: Natural Sciences Division
4. Department: Agricultural Sciences Department
5. Discipline: Agriculture: Livestock Production
6. Short Course Title: Beef Production
7. Effective Term: Summer 2009

SECTION B – Official Course Information

1. Recommended Class Size:
   a. Maximum Class Size: 24
   b. Class Size Approval Date:

2. Method of Instruction:
   □ Lecture  □ Work Experience, Occupational
   □ Laboratory  □ Work Experience, General
   □ Lecture and Laboratory  □ Open Entry/Exit
   □ Independent Studies  □ Apprentice

3. Contact Hours for a Term:
   Note: If not a variable unit/hour course, enter the same value for Low/High.

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>Lecture: 36.00</td>
<td>54.00</td>
</tr>
<tr>
<td>Lab:</td>
<td></td>
</tr>
<tr>
<td>Activity: To</td>
<td></td>
</tr>
<tr>
<td>Clinical: To</td>
<td>90</td>
</tr>
<tr>
<td>Total Hours: To</td>
<td></td>
</tr>
</tbody>
</table>

Lab/Lecture Parity? □ Yes □ No
4. Credit Units: 3.00 To
   1 Unit of credit per eighteen (18) hours of lecture contact hours for a term
   1 Unit of credit per fifty-four (54) hours of lab, activity or clinical contact
   hours for a term

5. Taxonomy of Programs (TOPS) Information:
   a. TOPS Code and Course Program Title:
      010210 - *Veterinary Technician - Licensed
   b. Course Control Number:
      (To be entered by the Instruction Office Only.)

6. SAM Priority Code: [Select One]
   □ A. Apprenticeship
       Courses offered to apprentices only.
   □ B. Advanced Occupational
       Courses taken in the advanced stages of an occupational program. Each "B" level course must have a
       "C" level prerequisite in the same program area.
   □ C. Clearly Occupational
       Courses taken in the middle stages of an occupational program. Should provide the student with
       entry-level job skills.
   □ D. Possible Occupational
       Courses taken in the beginning stages of an occupational program.
   □ E. Non-Occupational

7. General Course Information
   a. State Transfer Code: B Transferable, CSU/Private
   b. State Classification Code: I Occupational Education
   c. Basic Skills Status/Level: N0 Not a Basic Skills Course
   d. Grading Method: Letter Grade Only
   e. Frequency Offered:
      □ Fall
      □ Winter
      □ Spring
      □ Summer
      □ On Demand
   f. Number of repeats allowed: 0 - Not Repeatable
   g. Overlap/Duplicate Course:
   h. Material Fee: No Fee

8. Course Preparation
   a. □ Prerequisite
b.  □ Corequisite

c.  □ Advisories

d.  □ None

9. Course Special Designators:

10. Course Program Status:

  □ Program Applicable  □ Stand-alone

11. Funding Agency Category:

  □ Not Applicable
  □ Primarily developed using economic development funds
  □ Partially developed using economic development funds

SECTION C – Transfer Status

Baccalaureate Status is granted by the Educational Design General Education and Baccalaureate Level Subcommittee.

  □ CSU Transferable
  □ UC Transferable

SECTION D - General Education Request

Mt. San Antonio College and CSU General Education course approval are submitted to the Educational Design GE and BL Subcommittee for approval.

1. The Articulation Officer submits the course directly to the CSU Chancellor for approval.

2. Upon receiving approval, the course is approved for the Mt. SAC Associate Degree GE and placed in the area(s) CSU approval indicate(s).

   I.  □ Approved for inclusion on Mt. SAC and CSU General Education

   □ Yes  □ No  □ List?

1. Mt SAC General Education Applicability:
2. CSU General Education Applicability (Requires CSU approval):

3. IGETC Applicability (Requires CSU/UC approval):

SECTION E – CAN Articulation Information

CAN Code Information:
   II. CAN Code 1

CAN Sequence Code 1:
CAN Effective Term 1:
CAN End Term 1:

SECTION F - Course Content

1. Course Descriptions
   a. Catalog Description:
      Principles and practices in the selection and management of feeder, market, and
      breeding beef cattle. Economics of production, retail product, utilization of farm-grown
      feeds, and feedlot operation.

   b. Class Schedule Description:
      □ Yes □ No Is a course description to be printed in the Class Schedule?

2. Course Outline Information
   a. Lecture Topical Outline:
      - History of Beef Production
      - Future of Beef and Beef Production
      - Vocabulary/Livestock Terms
      - Anatomy and Characteristics of Beef
      - Handling and Restraint of Beef
- Beef Breeds
- Judging/Evaluating/Selecting Beef Cattle
- Halter Breaking/Training and Fitting/Showing Beef Cattle
- Stages of Beef Production
- Seedstock/Beef Breeding/Artificial Insemination/Pregnancy Checks
- Cow/Calf Operations
- Nutrition of Cow and Calf/Health Care of Herd
- Processing Calves/Vaccination and De-worming Schedules
- Weaning Process
- Stocker/Yearling Production/Feed Management
- Feedlot Production/Feeds and Feeding Beef Cattle
- Packer/Processing Plant/Carcass Evaluation
- Retailer/Marketing of Beef Cattle
- Wholesale and Retail Cuts of Beef
- Quality and Yield Grading
- Consumer Awareness/Issues/Trends/Solutions
- Overview and Summary of Beef Production and Management
- Analysis of Beef Industry
- Final Exam

b. **Lab Topical Outline:**

- Tour of Mt. SAC Beef Facilities
- Handling/Restraint of Cattle
- Moving the Herd/Separating a Single Animal
- Beef Breeds Computer Presentations
- Judging of Market and Breeding Beef/Judging Contest
- Halter Breaking/Training
- Grooming/Showing and Fitting/Showmanship Contest
- Artificial Insemination
- Pregnancy Checking
- Calving Procedures
- Processing Cattle and Calves/Health Care Procedures
- Operating a Chute
- Vaccination and De-worming Procedures
- Identification Procedures
- Castration Procedures
- Feeds and Feeding/Feed Samples and Identification
- Processing Plant/Field Trip
- Marketing Cattle/Wholesale and Retail Cuts/Field Trip
- General Overview/Review of Beef Production and Management

3. **Course Measurable Objectives:**

Provide a minimum of five (5) course measurable objectives:

1. Distinguish between different breeds of beef cattle.
2. Demonstrate methods of handling and restraining beef cattle.
3. Evaluate and properly place quality grades of beef.
4. Demonstrate proper selection of replacement breeding cattle.
5. Describe the seven major stages of beef production.
6. Summarize a herd health program for beef production.
7. Demonstrate methods of marketing beef cattle.
8. Identify primal and retail cuts of beef carcass.

4. **Course Methods of Evaluation:**

Category 1. Substantial written assignments for this course include:
- PowerPoint Presentation: Students will develop and professionally present a PowerPoint of their assigned breed of beef cattle.

- Term Paper: Students will develop an in-depth 2-5 page paper describing how to develop a fully functioning beef cattle ranch using their given scenario.

- Laboratory Participation: Students will create a lab workbook, which summarizes all individual lab sessions and includes a write-up on all procedures performed during each lab.

- Essay Exam(s)
If the course is degree applicable, substantial written assignments in this course are inappropriate because:

III. **Category 2. Computational or non-computational problem solving demonstrations:**

- Calculate temperature, pulse and respiration rates for cattle
- Measure weights for cattle: Calculate price per pound
- Research feeder and market selling prices: Determine when to sell versus when to buy

**Category 3. Skills Demonstrations:**
- Handling and Restraint Techniques
- Moving Cattle
- Vaccinating, De-worming and General Health Procedures on Herd
- Calving Procedures

**Category 4. Objective Examinations:**
- Matching Items
- True/False
- Multiple Choice
- Completion
- Short Answer
- Safety Exam(s)

5. Sample Assignments:

1. Research, create a PowerPoint and orally present a report on a particular beef breed.

2. Estimate the carcass merits of the live fair animals. Estimate the live animal grade prior to the fair showing, and compare to the official judge’s placing.

3. Create a term paper, which will be 2-5 pages, describing how to develop a fully functioning beef cattle ranch using a given scenario.

6. Representative Text:

   a. Book 1:

   IV. **Author:**

   V. **Title:**
b. Book 2:
   IX.  Author:
   X.   Title:
   XI.  Publisher:
   XII. Date of Publication:
   XIII. Edition:

c. Book 3:
   XIV. Author:
   XV.  Title:
   XVI. Publisher:
   XVII. Date of Publication:
   XVIII. Edition:
### SECTION A – Course Information

1. **Course ID:** AGLI 34  
2. **Course Title:** Livestock Judging and Selection  
3. **Division:** Natural Sciences Division  
4. **Department:** Agricultural Sciences Department  
5. **Discipline:** Agriculture: Livestock Production  
6. **Short Course Title:** Livestock Judg & Selec  
7. **Effective Term:** Summer 2009

### SECTION B – Official Course Information

1. **Recommended Class Size:**
   a. **Maximum Class Size:** 35  

2. **Method of Instruction:**
   - Lecture
   - Laboratory
   - Lecture and Laboratory
   - Independent Studies
   - Work Experience, Occupational
   - Work Experience, General
   - Open Entry/Exit
   - Apprentice

3. **Contact Hours for a Term:**
   - **Note:** If not a variable unit/hour course, enter the same value for Low/High.
   - **Low**  
     - Lecture: To 18.00  
     - Lab: To 54.00  
     - Activity: To  
     - Clinical: To  
     - Total Hours: To 72  
   - **High**  

   **Lab/Lecture Parity?**  
   - Yes  
   - No
4. Credit Units: 2.00 To
   1 Unit of credit per eighteen (18) hours of lecture contact hours for a term
   1 Unit of credit per fifty-four (54) hours of lab, activity or clinical contact
   hours for a term

5. Taxonomy of Programs (TOPS) Information:
   a. TOPS Code and Course Program Title:
      010200 - *Animal Science
   b. Course Control Number:
      (To be entered by the Instruction Office Only.)

6. SAM Priority Code: [Select One]
   √ A. Apprenticeship
      Courses offered to apprentices only.
   B. Advanced Occupational
      Courses taken in the advanced stages of an occupational program. Each "B" level course must have a
      "C" level prerequisite in the same program area.
   C. Clearly Occupational
      Courses taken in the middle stages of an occupational program. Should provide the student with
      entry-level job skills.
   D. Possible Occupational
      Courses taken in the beginning stages of an occupational program.
   E. Non-Occupational

7. General Course Information
   a. State Transfer Code: A Transferable, UC/CSU/Private
   b. State Classification Code: I Occupational Education
   c. Basic Skills Status/Level: N0 Not a Basic Skills Course
   d. Grading Method: Letter Grade Only
   e. Frequency Offered:
      √ Fall
      √ Winter
      √ Spring
      □ Summer
      □ On Demand
   f. Number of repeats allowed: 0 - Not Repeatable
   g. Overlap/Duplicate Course:
   h. Material Fee: No Fee

8. Course Preparation
   a. Prerequisite
b. □ Corequisites

c. □ Advisories

d. □ None

9. Course Special Designators:

10. Course Program Status:

☐ Program Applicable □ Stand-alone

11. Funding Agency Category:

☐ Not Applicable

□ Primarily developed using economic development funds

□ Partially developed using economic development funds

SECTION C – Transfer Status

Baccalaureate Status is granted by the Educational Design General Education and Baccalaureate Level Subcommittee.

☐ CSU Transferable

☐ UC Transferable

SECTION D – General Education Request

Mt. San Antonio College and CSU General Education course approval are submitted to the Educational Design GE and BL Subcommittee for approval.

1. The Articulation Officer submits the course directly to the CSU Chancellor for approval.

2. Upon receiving approval, the course is approved for the Mt. SAC Associate Degree GE and placed in the area(s) CSU approval indicate(s).

☐ Yes □ No □ List?

Approved for inclusion on Mt. SAC and CSU General Education

1. Mt SAC General Education Applicability:
2. CSU General Education Applicability (Requires CSU approval):

3. IGETC Applicability (Requires CSU/UC approval):

SECTION E – CAN Articulation Information

CAN Code Information:

XX. CAN Code 1

CAN Sequence Code 1:

CAN Effective Term 1:

CAN End Term 1:

SECTION F - Course Content

1. Course Descriptions

   a. Catalog Description:

       Study of form and appearance of farm animals as related to their function. Includes
       judging of breeding and terminal livestock as well as carcass evaluation.

   b. Class Schedule Description:

       ☐ Yes        ☑ No        Is a course description to be printed in the Class Schedule?

2. Course Outline Information

   a. Lecture Topical Outline:

       -Introduction of Livestock Judging
       -Foundation of Livestock Judging
       -Current Industry Standards of Livestock Evaluation (Types & Breeds)
       -Anatomy of All Major Livestock Species
       -Judging Procedure
- Prioritizing Traits for Appropriate Livestock Classes
- Placing Livestock Classes
- Note Taking and Preparation of Oral Reasons for Evaluations
- Delivering a Proper Set of Oral Reasons
- Live Animal Evaluation as Compared to Carcass Evaluation
- Breeding Animal Evaluation (Application of EPD's)
- Judging Market Cattle, Swine, Sheep, and Goats
- Carcass Evaluation of Cattle, Swine, Sheep, and Goats
- Judging Wool Sheep (Wool Grades & Classification)
- Judging Dairy Animals: Cattle and Goats
- Judging Horses: Conformation and Soundness
- Judging Showmanship Contests
- Final Exam

b. Lab Topical Outline:

- Touring Agriculture Facilities (Animal Units)
- Introducing Judging Procedures
- Identifying types and breeds of Livestock
- Note-taking and giving oral reasons for judging
- Judging various classes: set-up, analyze, place and present reasons
  - Judging market cattle
  - Judging breeding cattle
  - Judging market swine
  - Judging breeding swine
  - Judging market sheep
  - Judging breeding sheep
  - Judging wool sheep
  - Judging dairy animals: cattle and goats
  - Judging light horses
  - Judging Showmanship: various scenarios and classes
  - Judging final reasons and placing

3. Course Measurable Objectives:

Provide a minimum of five (5) course measurable objectives:

1. Analyze the relationship of animal anatomy and live animal function.

2. Identify proper form and breed characteristics of livestock species.

3. Demonstrate the use of livestock judging cards and forms.

4. Validate animal judging class placements through written and oral rationale.

5. Compare live animal evaluation with carcass evaluation.

6. Interpret animal performance records and pedigrees.

7. Evaluate soundness as it relates to production of breeding animals.

8. Appraise wool quality and grade.

9. Evaluate showmanship techniques for livestock.

4. Course Methods of Evaluation:

Category 1. Substantial written assignments for this course include:
-Laboratory Participation: Students will create a lab workbook, which summarizes all individual lab sessions and includes a thorough write-up of their reasons for each class they judged and paced.

If the course is degree applicable, substantial written assignments in this course are inappropriate because:

XXI. **Category 2. Computational or non-computational problem solving demonstrations:**
- Identify Animal Anatomy
- Proper Placement of Animal Classes
- Description of Livestock Placings
- Oral Defense of Livestock Placings
- Analyze Live Animal Placings and Carcass Placings

**Category 3. Skills Demonstrations:**
- Identify Animal Anatomy
- Judging Skills
- Livestock Placing Skills
- Describe Livestock Placings
- Oral Presentations of Livestock Placings

**Category 4. Objective Examinations:**
- Live Animal Judging Examinations: Students will properly place various livestock judging classes and then defend their placements both written and orally. Furthermore, they will analyze their live animal placements with those of the carcass animal placements.

5. **Sample Assignments:**

1. Prepare a written list of reasons to justify assignment of a particular animal to a particular class as judged during an in-class demonstration.

2. After observing the performance of an official judge at a local livestock or horse show, discuss and critique the judging performance.

3. Participate in a lab exercise to evaluate a large group of breeding animals; "keep & cull" the herd in a 50:50 ratio.

6. **Representative Text:**

**a. Book 1:**

XXII. **Author:** Ray V. Herren

XXIII. **Title:** The Art and Science of Livestock Evaluation

XXIV. **Publisher:** Delmar Cengage Learning

XXV. **Date of Publication:** June 19, 2009

XXVI. **Edition:** 1/E
b. Book 2:
   XXVII. Author:

   XXVIII. Title:

   XXIX. Publisher:

   XXX. Date of Publication:

   XXXI. Edition:

c. Book 3:
   XXXII. Author:

   XXXIII. Title:

   XXXIV. Publisher:

   XXXV. Date of Publication:

   XXXVI. Edition:
### SECTION A – Course Information

1. Course ID: AGLI 97
2. Course Title: Artificial Insemination of Livestock
3. Division: Natural Sciences Division
4. Department: Agricultural Sciences Department
5. Discipline: Agriculture: Livestock Production
6. Short Course Title: Artificial Insemination
7. Effective Term: Summer 2005

### SECTION B – Official Course Information

1. Recommended Class Size:
   a. Maximum Class Size: 24
   b. Class Size Approval Date:

2. Method of Instruction:
   - Lecture
   - Laboratory
   - Lecture and Laboratory
   - Independent Studies
   - Work Experience, Occupational
   - Work Experience, General
   - Open Entry/Exit
   - Apprentice

3. Contact Hours for a Term:
   Note: If not a variable unit/hour course, enter the same value for Low/High.

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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</table>
4. Credit Units:
   2.00 To
   1 Unit of credit per eighteen (18) hours of lecture contact hours for a term
   1 Unit of credit per fifty-four (54) hours of lab, activity or clinical contact
   hours for a term

5. Taxonomy of Programs (TOPS) Information:
   a. TOPS Code and Course Program Title:
      011200 - *Agriculture Business, Sales and Service
   b. Course Control Number:
      (To be entered by the Instruction Office Only.)

6. SAM Priority Code: [Select One]
   A. Apprenticeship
      Courses offered to apprentices only.
   B. Advanced Occupational
      Courses taken in the advanced stages of an occupational program. Each "B" level course must have a
      "C" level prerequisite in the same program area.
   C. Clearly Occupational
      Courses taken in the middle stages of an occupational program. Should provide the student with
      entry-level job skills.
   D. Possible Occupational
      Courses taken in the beginning stages of an occupational program.
   E. Non-Occupational

7. General Course Information
   a. State Transfer Code: C1 Not Transferable, AA/AS Degree
   b. State Classification Code: I Occupational Education
   c. Basic Skills Status/Level: N0 Not a Basic Skills Course
   d. Grading Method: Letter Grade Only
   e. Frequency Offered:
      □ Fall
      □ Winter
      □ Spring
      □ Summer
      □ On Demand
   f. Number of repeats allowed: 0 - Not Repeatable
   g. Overlap/Duplicate Course:
   h. Material Fee: No Fee

8. Course Preparation
   a. □ Prerequisite
b. ☐ Corequisites

c. ☐ Advisories

d. ☑ None

9. Course Special Designators:

10. Course Program Status:

☑ Program Applicable ☐ Stand-alone

11. Funding Agency Category:

☑ Not Applicable

☑ Primarily developed using economic development funds

☑ Partially developed using economic development funds

SECTION C – Transfer Status

Baccalaureate Status is granted by the Educational Design General Education and Baccalaureate Level Subcommittee.

☑ CSU Transferable

☑ UC Transferable

SECTION D – General Education Request

Mt. San Antonio College and CSU General Education course approval are submitted to the Educational Design GE and BL Subcommittee for approval.

1. The Articulation Officer submits the course directly to the CSU Chancellor for approval.

2. Upon receiving approval, the course is approved for the Mt. SAC Associate Degree GE and placed in the area(s) CSU approval indicate(s).

☑ Yes ☐ No

☑ XXXVII. Approved for inclusion on Mt. SAC and CSU General Education List

1. Mt SAC General Education Applicability:
2. CSU General Education Applicability (Requires CSU approval):

3. IGETC Applicability (Requires CSU/UC approval):

SECTION E – CAN Articulation Information

CAN Code Information:

XXXVIII. CAN Code 1

CAN Sequence Code 1:

CAN Effective Term 1:

CAN End Term 1:

SECTION F – Course Content

1. Course Descriptions

a. Catalog Description:

Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.

b. Class Schedule Description:

☐ Yes ☐ No Is a course description to be printed in the Class Schedule?

2. Course Outline Information

a. Lecture Topical Outline:

- History of Artificial Insemination (AI)
- Development of AI
- Current status of AI
- Reproductive anatomy and physiology of the female
- Hormones and interactions of the female
- Reproductive anatomy and physiology of the male
- Hormones and interactions of the male
- Artificial collection and insemination equipment (major Species)
- Artificial collection and insemination technique (major Species)
- Sire selection (Use of stud books & interpreting EPD's)
- Semen collection, evaluation, processing, and thawing
- Dam selection
- Heat detection, synchronization, and insemination
- Reproductive efficiency
- Pregnancy detection
- Overview and summary of AI
- Analysis of AI industry and arising trends
- Final Exam

b. Lab Topical Outline:
- Touring Lab Facilities
- Inspecting artificial insemination equipment
- Viewing expert demonstration of Artificial Insemination
- Dissecting female reproductive tract
- Dissecting male reproductive tract
- Practicing semen collection (major Species)
- Practicing semen evaluation
- Conducting heat checks
- Implementing synchronization program
- Practicing insemination techniques (major Species)
- Conducting pregnancy detection
- Visiting animal hospital with state of the art reproductive facilities
- Reviewing proper artificial collection and insemination procedures
- Lab Final

3. Course Measurable Objectives:

Provide a minimum of five (5) course measurable objectives:

1. Describe the advantages and disadvantages of utilizing artificial insemination in domestic animals.

2. Create a diagrammatic representation of the reproductive anatomy and physiology of domestic animals.

3. Demonstrate proper semen collection, evaluation, and processing procedures.

4. Summarize methods of estrus synchronization used for artificial insemination.

5. Implement an estrus detection schedule.

6. Demonstrate appropriate artificial insemination techniques.

8. Diagnose pregnancy in domestic animals.

4. Course Methods of Evaluation:

Category 1. Substantial written assignments for this course include:
- Laboratory Participation: Students will create a lab workbook, which summarizes all individual lab sessions and includes a write-up on all procedures performed during each lab.

- Essay Exam(s)

If the course is degree applicable, substantial written assignments in this course are inappropriate because:
XXXIX. Category 2. Computational or non-computational problem solving demonstrations:

- Identify Artificial Insemination Tcoins
- Describe Artificial Collection and Insemination Processes
- Describe Semen Processing

Category 3. Skills Demonstrations:

- Artificial Collection Skills (Major Species)
- Artificial Insemination Skills (Major Species)
- Semen Analysis and Processing Skills

Category 4. Objective Examinations:

- Matching Items and Part Identification: Questions using female and male anatomy
- Fill in the Blank: Questions using proper procedures for collection and insemination techniques
- Multiple Choice: Questions using proper procedures for collection and insemination techniques
- Short Answer(s): Questions that refer to specific insemination procedures for various animal species

5. Sample Assignments:

1. Design a protocol for synchronizing estrus in beef cattle that will correspond to the college’s breeding seasons.

2. Given information about a desired breeding scenario, select the appropriate sires to produce the desired outcome.

3. Write a response paper discussing the role artificial insemination plays in gene diversity and genetic improvement of livestock.

6. Representative Text:

a. Book 1:

XL. Author: Mitchell & Doak

XLII. Title: Artificial Insemination & Embryo Transfer of Dairy & Beef Cattle Including Information Pertaining to Goats, Sheep, Horses, Swine & Other Animals: A Handbook & Laboratory Manual for Students Herd Operators & Persons Involved in Genetic Development

XLIII. Publisher: Pearson

XLIV. Date of Publication: 2004

XLV. Edition: 9/E
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<td>Title</td>
<td>Applied Animal Reproduction</td>
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<tr>
<td>Publisher</td>
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**See Appendix B – Style Sheet of Local Course Review Practices**

C. The program offers current information about certificate and degrees in Agriculture/Natural Resources.

- Mt. San Antonio College offers two different types of certificates for credit programs of study: Certificates of Achievement, and Skills Certificates.

Certificates of Achievement are awarded for completion of an approved program of study meeting certain requirements of the California Community College Chancellor’s Office in terms of total unit values and other criteria. The possession of such a certificate is favorably recognized by businesses and industries and is frequently a requirement for professional advancement. Included in the Certificates of Achievement are wide varieties of occupational certificates as well as two certificates designed to reflect completion of general education requirements for students preparing to transfer to a California State University campus [CSU General Education Breadth] or to a campus of the University of California or CSU [Inter-Segmental General Education Transfer Curriculum (IGETC)]. The awarding of all Certificates of Achievement is noted on a student’s official transcript.

Skills Certificates are lower-unit certificates in various occupational areas. Although the awarding of Skills Certificates is not noted on a student’s official transcript, the student may apply for and receive a documentation certificate from the college that may be of value in documenting knowledge and skills to potential employers. In many cases, entry-level Skills Certificates may be part of a ladder-track of increasing levels of preparation in an occupational...
area, and courses used to complete them may form a core of requirements that are augmented as students pursue higher levels of proficiency toward a Certificate of Achievement.

AGRICULTURAL SCIENCES

The Mt. SAC agricultural sciences program consists of coursework, laboratory work, and practical, hands-on experience in animal science, horticulture, and veterinary technician instruction.

Our outstanding on-campus facilities and industry-experienced faculty give students a practical, real-world experience in a classroom setting.

Each year animal science students buy and sell farm animals, and our award-winning horticulture students grow and sell hundreds of varieties of trees, plants, and ground covers.

Students also attend field trips and can intern with nearby industry in Los Angeles County, which is one of the largest dollar-volume users of horticultural products in the world.

Upcoming Events

- Farm Day (click here for more information)

Additional Calendar Events
ANIMAL SCIENCES

The Animal Science program at Mt. San Antonio College is one of the largest in California and the most comprehensive in Southern California. The College serves Los Angeles, San Bernardino, Orange and Riverside counties. Located in Los Angeles County, which is one of the largest dollar volume counties, utilizing animal products in the world.

The Mt. SAC Animal Science program provides students with many benefits, including:

- A practical approach to Animal Science with hands-on experience and interaction with the animal science industry. We use local industries for numerous field trips and job placement.
- Diverse class scheduling allows individuals to maintain employment while studying towards a degree or certificate. Most classes are offered in block mode (meet one or two days per week).
- Work experience programs where students can earn units of credit while gaining on-the-job experience.
- Individualized and personalized instruction with low student-to-teacher ratio.
- Fall- and Part-time faculty with nearly 100 years of practical industry experience.
- Students assist with the production and marketing of animals produced on the 250 acre school farm maintained by the College. Most of the land is used to produce feed for the animals raised by the College.

Students who are considering transferring to a four-year degree program can earn an Associate in Science Degree in Animal Science with specialization in Livestock and Horse Ranch Management, Pet Science, and Ag Technology. In addition, our program offers certificates in Livestock Management, Horse Ranch Management and Pet Science.

ORNAMENTAL HORTICULTURE

Ornamental Horticulture is a career which involves the production and distribution of ornamental plants that are decorative and usually not used for food. California is the leading horticulture producer in the United States. Not only does California export horticulture products to the rest of the United States, but more importantly Californians use 70% of the plants produced in the state. People in California have developed a horticulture lifestyle and are interested in planting and enjoying the beauty of flowers, trees, and shrubs.

California is currently experiencing a shortage of trained people to work in the horticulture industry. In fact, the shortage is a critical factor in limiting industry expansion and growth.

At Mt. SAC you have an opportunity to learn about horticulture and join the trained professionals in this exciting career pathway.
CERTIFICATES OFFERED IN LIVESTOCK MANAGEMENT (60103)
- This certificate program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services.
- All courses are applicable for degree requirements.
  - Requirements for the Certificate:
    - AGAB 20 Microcomputer Applications in Agriculture
    - AGAG 1 Food, Land Use and Politics—A Global Perspective
    - AGAG 91 Agricultural Calculations
    - AGAN 1 Animal Science
    - AGAN 2 Animal Nutrition
    - AGAN 94 Animal Breeding
    - AGLI 14 Swine Production
    - AGLI 16 Horse Production
    - AGLI 17 Sheep Production
    - AGLI 30 Beef Production
    - AGLI 34 Livestock Judging and Selection
    - AGLI 96 Animal Sanitation and Disease Control
  - PLUS: Select six [6] units from the following:
    - AGOR 71 Landscape Construction Fundamentals
    - BUSM 20 Principles of Business
    - BUSM 66 Small Business Management
    - BUSS 35 Professional Selling
    - BUSS 36 Principles of Marketing

CERTIFICATES OFFERED IN HORSE RANCH MANAGEMENT (60102)
- This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services.
- All courses are applicable for degree requirements.
  - Requirements for the Certificate:
    - AGAB 20 Microcomputer Applications in Agriculture
    - AGAG 59 or 60 or
    - 61 or 62 Work Experience in Agriculture
    - AGAN 2 Animal Nutrition
    - AGAN 94 Animal Breeding
    - AGLI 16 Horse Production or
    - AGLI 18 Horse Ranch Management
    - AGLI 19 Horse Hoof Care
    - AGLI 96 Animal Sanitation and Disease Control
    - AGLI 97 Artificial Insemination of Livestock

CERTIFICATES OFFERED IN PET SCIENCE (60104)
- This certificate program is designed to give students basic skills in production and marketing of pets at the wholesale and retail level.
- All courses are applicable for degree requirements.
  - Requirements for the Certificate:
    - AGAB 20 Microcomputer Applications in Agriculture
    - AGAN 1 Animal Science
• AGAN 2 Animal Nutrition
• AGAN 51 Animal Handling and Restraint
• AGAN 94 Animal Breeding
• AGLI 96 Animal Sanitation and Disease Control
• AGPE 70 Pet Shop Management
• AGPE 71 Canine Management
• AGPE 72 Feline Management
• AGPE 73 Tropical and Cold Water Fish Management
• AGPE 76 Aviculture: Cage and Aviary Birds
• BUSM 66 Small Business Management

❖ CERTIFICATES IN HORTICULTURE
  ✔ The following certificates are skill-oriented and derived from input of industry professionals in the horticultural fields represented. The curriculum is intended to prepare students for entry-level positions or skill enhancement in horticulture.
    - Interior Landscaping Certificate
      • AGOR 1 Horticulural Science
      • AGOR 13 Landscape Design
      • AGOR 15 Interior Landscaping
      • AGOR 24 Integrated Pest Management
      • AGOR 29 Ornamental Plants - Herbaceous
      • AGOR 32 Landscaping and Nursery Management
      • AGOR 62 Landscape Irrigation - Design and Installation
      • AGOR 64 Landscape Irrigation - Drip and Low Volume
    - Landscape Design and Construction Certificate
      • AGOR 1 Horticulural Science
      • AGOR 13 Landscape Design
      • AGOR 29 Ornamental Plants - Herbaceous
      • AGOR 30 Ornamental Plants - Trees and Woody Shrubs
      • AGOR 50 Soil Science and Management
      • AGOR 51 Tractor and Landscape Equipment Operations
      • AGOR 62 Landscape Irrigation - Design and Installation
      • AGOR 71 Landscape Construction Fundamentals
      • AGOR 72 Landscape Hardscape Applications
    - Landscape Equipment Technology Certificate
      • AGOR 1 Horticulural Science
      • AGOR 51 Tractor and Landscape Equipment Operations
      • AGOR 52 Hydraulics
      • AGOR 53 Small Engine Repair I
      • AGOR 54 Small Engine Repair II
      • AGOR 55 Diesel Engine Repair
      • AGOR 56 Engine Diagnostics
      • AGOR 57 Power Train Repair
      • AGOR 71 Landscape Construction Fundamentals
      • AGOR 72 Landscape Hardscape Applications
      • AGOR 91 or 92 or 93 or 94 Work Experience in Nursery Operations
- Landscape Irrigation Certificate
  - AGOR 1 Horticultural Science
  - AGOR 13 Landscape Design
  - AGOR 39 Turf Grass Production and Management
  - AGOR 50 Soil Science and Management
  - AGOR 51 Tractor and Landscape Equipment Operations
  - AGOR 62 Landscape Irrigation - Design and Installation
  - AGOR 63 Landscape Irrigation Systems Management
  - AGOR 64 Landscape Irrigation – Drip and Low Volume
  - AGOR 71 Landscape Construction Fundamentals

- Landscape and Park Maintenance Certificate
  - AGOR 1 Horticultural Science
  - AGOR 24 Integrated Pest Management
  - AGOR 29 Ornamental Plants - Herbaceous
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs
  - AGOR 39 Turf Grass Production and Management
  - AGOR 40 Sports Turf Management
  - AGOR 51 Tractor and Landscape Equipment Operations
  - AGOR 62 Landscape Irrigation - Design and Installation
  - AGOR 63 Landscape Irrigation Systems Management
  - AGOR 71 Landscape Construction Fundamentals

- Nursery Management Certificate
  - AGOR 1 Horticultural Science
  - AGOR 2 Plant Propagation/Greenhouse Management
  - AGOR 24 Integrated Pest Management
  - AGOR 29 Ornamental Plants - Herbaceous
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs
  - AGOR 32 Landscaping and Nursery Management
  - AGOR 39 Turf Grass Production and Management
  - AGOR 62 Landscape Irrigation - Design and Installation
  - AGOR 64 Landscape Irrigation – Drip and Low Volume

- Tree Care and Maintenance Certificate
  - AGOR 1 Horticultural Science
  - AGOR 24 Integrated Pest Management
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs
  - AGOR 32 Landscaping and Nursery Management
  - AGOR 50 Soil Science and Management
  - AGOR 51 Tractor and Landscape Equipment Operations
  - AGOR 53 Small Engine Repair I
  - AGOR 75 Urban Arboriculture

- Sports Turf Management Certificate
  - AGOR 1 Horticultural Science
  - AGOR 24 Integrated Pest Management
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs
  - AGOR 39 Turf Grass Production and Management
  - AGOR 40 Sports Turf Management
  - AGOR 50 Soil Science and Management
• AGOR 51 Tractor and Landscape Equipment Operations
• AGOR 62 Landscape Irrigation Design and Installation
• AGOR 63 Landscape Irrigation Systems Management

  Park Management Certificate
  • AGOR 1 Horticultural Science
  • AGOR 4 Park Management
  • AGOR 5 Park Facilities
  • AGOR 24 Integrated Pest Management
  • AGOR 30 Ornamental Plants - Trees and Woody Shrubs
  • AGOR 39 Turf Grass Production and Management
  • AGOR 51 Tractor and Landscape Equipment Operations
  • AGOR 62 Landscape Irrigation - Design and Installation
  • AGOR 63 Landscape Irrigation Systems Management
  • AGOR 75 Urban Arboriculture

  Floral Design Certificate
  • AGAB 20 Microcomputer Applications in Agriculture
  • AGOR 1 Horticultural Science
  • AGOR 15 Interior Landscaping
  • AGOR 25 Floral Design I
  • AGOR 26 Floral Design II
  • AGOR 29 Ornamental Plants - Herbaceous
  • AGOR 32 Landscaping and Nursery Management

See Appendix C – Animal Science, Vet Tech, and Horticulture Handbooks

D. A system of student advising has been established by the program to provide accurate information to students about degrees and certificate programs at the institution.

  ❍ There is a student advising system in place with both the entire college and the department as a whole.

  All departments work with the counseling department to aid students in preparing educational plans for each certificate. Furthermore, our department has a program director who helps to guide students and determine an educational plan for each student to aid in the successful completion of the variety of courses we offer. Additionally, at the beginning of each semester the department holds a one hour orientation designed to help answer the frequently asked questions of all students who are entering our program.

E. The program utilizes qualified full-time and adjunct faculty that meet all minimum qualifications as outlined by state and local equivalency standards.

  ❍ There is a staff of 8 full-time faculty members for our program and some additional adjunct faculty.
    o 3 Horticultural Science Professors: Jennifer Garwick, Brian Scott, and Tom Visosky
    o 3 Animal Science Professors: Audra Lopez, Jamie Sakugawa-Phillips, and Dawn Waters
    o 2 Veterinary Technology Professors: Jean Hoffman, and Gary Uyeno
Fortunately, we are fully staffed here at Mt. SAC and we have just been allowed to hire another full time professor for the Agricultural Sciences program. The new hire will be starting this coming fall semester of 2011. All of our full time faculty and adjunct faculty have undergone the comprehensive hiring process at Mt.SAC.

The Mt. SAC Human Resources Department is committed to attracting and retaining a highly skilled and talented workforce to fulfill the College’s mission of educational excellence. To achieve these goals, the Human Resources Team remains responsive to the changing needs of the institution and the community.

See Appendix D – Professor Positions
QUALITY CRITERIA #3 – PROGRAM EFFECTIVENESS

A. The program conducts on-going evaluation in an effort to offer a relevant and effective Agriculture/Natural Resources program.
B. The program has an annual process through which program effectiveness can be measured.
C. The program evaluates student outcomes and makes adjustments to curriculum and programs in an effort to improve those outcomes.

❖ As I have previously discussed, the department uses a program called PIE: Planning for Institutional Effectiveness, to assess our overall program effectiveness each year.

PIE is the model used at Mt. SAC to capture and document the planning and program review done at the unit and team levels, and to relate this planning to current and future institutional goals and objectives. This process is conducted annually by each unit of the college, and all unit participation is documented in ePIE, the College’s electronic program review system. Evaluation of the PIE process is continuous. Each year, the Institutional Effectiveness Committee (IEC) requests and receives feedback via the manager and team summaries on process clarity, utility, ease of use, effectiveness of documents and training, etc. This feedback is included in adjustments for the following year’s PIE process. The PIE process clearly exemplifies an evaluative, integrated planning effort (i.e., more than one stakeholder is required to participate in the plan in order to achieve the desired outcome similar to master plans such as the Educational Master Plan, Facilities Master Plan, and the Technology Master Plan).

See Appendix E – Mt. SAC Strategic Plan
QUALITY CRITERIA #4 – EDUCATIONAL PROGRAMS

A. The program offers courses, certificates, and degrees that meet the needs of the college and community.
B. The program offers certificates and degrees in a manner that provides students the opportunity to complete the program announced within a reasonable time.

- Mt. San Antonio College offers two different types of certificates for credit programs of study: Certificates of Achievement, and Skills Certificates.


These courses are offered in both our fall and spring semesters. Students can complete these courses at any given time during their enrollment with Mt.SAC. Students have the option to choose between doing the full completion of our program, which will allow them to receive their associate’s degree, or they can choose to take selected courses to receive certain certificates.

See Appendix C – Animal Science, Vet Tech, and Horticulture Handbooks

C. The program identifies and makes public student learning outcomes for its certificate and degree programs.

- Our department meets yearly for our Planning for Institutional Effectiveness. During this time we enter our Student Learning Outcomes via e-PIE on tracdat, for each course we offer in our program.

Once we have discussed our expectations as a department we all create multiple Student Learning Outcomes for each course we teach in our department. Individual professors will then enter these specific SLOs for their courses into our college’s PIE program. Once the SLOs have been entered into the program everyone is able to view them. Additionally, as a department we highlight our SLOs on our program website. Furthermore, each professor is required to list at least two course SLOs on their syllabi.
See Appendix A – Guidebook for SLO and AUO
See Appendix F – Course Syllabi

D. The program documents the technical and professional competence of students completing certificate and degree programs.

- The department actively assesses and enters all results of course and certificate completers into the e-PIE program.

For each course there are multiple SLOs entered into PIE. Once all the SLOs have been entered, each professor is individually responsible for actively assessing the SLOs they have input into the program. Once the SLOs have all been assessed the PIE program runs a progress report at the end of each semester. This report contains vital information for our department, which includes the certificates and degrees that were awarded. All of this information is crucial to help the department with the continual improvement of our program. From this data we are able to make the necessary changes to further enhance student success.
See Appendix G – Degrees and Certificates Awarded

E. All certificates and degrees offered in the program have been approved through the local curriculum process and adopted by the local board of trustees.

   - The college has a standard four-year curriculum review cycle.
     - Departments receive letters from the curriculum committee, with information about which courses will need to be reviewed for the upcoming year.
     - These curriculum revisions are done by the professor or faculty, who are teaching the course at the present time.
     - The curriculum must be submitted by early fall. The curriculum then undergoes a five stage approval process in order to be implemented for the following year.

The certificates offered through our department are directly linked to the courses offered. Therefore, the curriculum review and approval process discussed earlier as part of quality criteria 2 can be applied for this particular quality criteria too.

F. The program utilizes publications and other media to inform the community of program activities.

   - The department uses our website, our college’s media services department and various industry representatives to help inform the community of program activities.
As a community college we are fortunate to have multiple facets to help communicate to everyone about our program and department activities. First, anyone could visit the college’s website to direct them to our department website. Here people can find out about everything our program has to offer and a calendar of events, which discusses upcoming activities. Furthermore, whenever the department is hosting an event we can get in touch with the media services department on campus and they will help advertise our event. They make a school wide announcement via e-mail and they post the announcement on the school’s marquee. Also, they will post an ad for us in the local newspaper. To make sure we are reaching the surrounding communities we always make sure our advisory committees are aware of our events. Since our advisory committees are made up of industry representatives, this really helps to get the word out about our program and the events taking place within our program.

The M.S. SAC agricultural sciences program consists of coursework, laboratory work, and practical, hands-on experience in animal science, horticulture, and veterinary technician instruction.

Our outstanding on-campus facilities and industry-experienced faculty give students a practical, real-world experience in a classroom setting.

Each year animal science students buy and sell farm animals, and our award-winning horticulture students grow and sell hundreds of varieties of trees, plants, and ground covers.

Students also attend field trips and can intern with nearby industry in Los Angeles County, which is one of the largest dollar-volume users of horticultural products in the world.

Upcoming Events:

1. Farm Day (click here for more information)
G. The program continues to improve and expand course offerings to reflect the ever-changing agriculture industry.

- Due to budget constraints the program is not allowed to expand course offerings at the present time.

The program and department is always striving to improve and expand course offerings, therefore staying true to our mission and enhancing student success. However, during these current economic times no departments in the college are being allowed to expand their course load. This does not mean that the department has failed to improve, just expand. Everyone is still striving to meet the current instructional standards of both the state and the industry. In agriculture, it is vital to stay current with the trends of the industry, therefore, we as professors are always in constant communication with our advisory board members and industry leaders.
QUALITY CRITERIA #5 – PROGRAM STUDENT SUPPORT AND DEVELOPMENT

A. The Agriculture/Natural Resources program has identified and conducts student leadership activities outside normal classroom instruction.

B. Agriculture/Natural Resources student leadership organizations have been sanctioned by the appropriate college student body organization.

C. Agriculture/Natural Resources student leadership organizations have constitutions, advisors, and elected officers.

- Mt. SAC has a Student Services Center, which houses the Student Life Office for program support and development.

The Student Life Office is an area where all students may go to get involved with the various leadership opportunities, clubs and organizations. These services allow students to get their club started and then sanctioned. A club is started by at least five students who share a common interest (social, recreational, vocational, educational, cultural or religious). All clubs must have a faculty or staff advisor. The agricultural program currently has two sanctioned leadership organizations: The Equine Club, and the Registered Veterinary Technology Club. The program also has an Agriculture Mechanics Club; however, they are not active at the present time.

GET INVOLVED ...
GET CONNECTED...
GET A (STUDENT) LIFE!

The Student Life Office welcomes you to this site, which will inform you of the numerous activities and services that can help make campus life at Mt. SAC a hip and rewarding experience. We encourage you to get involved in the various leadership opportunities, clubs, organizations, as well as the many social activities, which will give you a real sense of purpose and belonging. After exploring the opportunities on this site, come visit us in the Student Life Center (Building 9C), where you can unwind and get connected with fellow students.
STUDENT CLUBS & ORGANIZATIONS

Mt. SAC offers a wide assortment of opportunities for students to make friends and enhance learning—not to mention have fun! One way is by joining one of the 40 clubs or campus organizations on campus. If you are interested in joining one, the Student Life Office is the place for information.

A club is started by at least five students who share a common interest (social, recreational, vocational, educational, cultural or religious). All clubs must have a faculty or staff advisor. Please click here for a listing of current, active clubs. Also listed are those clubs that are not longer active, but you may want to reactivate. If you don’t see a club that piques your interest, you might want to start one of your own!

For more information about starting a club, please call or visit the Student Life Office (Building 9C) Phone: (909) 694-5611, ext. 4525.

❖ EQUINE CLUB

- Dawn Waters (Ext. 4579/ dwaters@mtsac.edu)
- Meeting times: Every Thursday, 3:00 p.m. - Equine Unit
  - To encourage the growth of the Equine Center and programs by providing fund raisers, educational clinics, volunteering in the community and equestrian field; and providing students with all levels of experiences and the opportunity to expand their knowledge through hands on learning experience.

❖ REGISTERED VETERINARY TECHNOLOGY CLUB

- Advisor(s): Jean Hoffman (Ext. 4544 / jhoffman@mtsac.edu), Dawn Waters (Ext. 4579 / dwaters@mtsac.edu), Darlene Vaie (Ext. 4557 / dvale@mtsac.edu)
- Meeting times: Every Monday, 11:00 a.m. - Building 80-1641
  - To provide a supportive environment within the animal care community focusing on growth of skills and knowledge in veterinary medicine; to offer the opportunity to develop communication and leadership skills which will promote personal growth and team cooperation.

❖ AGRICULTURAL MECHANICS CLUB

- The purpose of this organization is to promote and assist the varied interests of the Agriculture Department at Mt. SAC and also to bring together the students of the Agricultural Department.
D. The program provides funding for student leadership organizations and student expenses.

- No funding is provided by the program for student leadership organizations or their student expenses.

The clubs that represent the Agricultural Program are responsible for their own funding and expenses. In order to cover any expenses the clubs will hold fundraising events, which the department will help to organize and host.

E. The program has an Agriculture/Natural Resources ambassador program.

- The Mt. SAC Agricultural Sciences Program was recently awarded a grant by the USDA, which provided us funding to create our current Agricultural Ambassador Program.

Our Agricultural Ambassadors are called upon throughout the year to represent the department at functions such as: Farm Day, Agri-Science Camps, Career Fairs, and other recruitment and campus events.

- Agricultural Ambassador Program:
  - Mission Statement:
    - The Ag Ambassador Program is an integral part of the recruitment program for the Agricultural Sciences Department at Mt. San Antonio College. Ambassadors will assist the department faculty and staff in promoting the Agricultural Sciences Department, Careers in Agricultural Sciences, and the value of higher education. Ambassadors will represent the excellence of the student body within the Department. Students participating in the program will gain valuable skills that will be beneficial to them as students and graduates of our program. In addition, Ambassadors will be a valuable resource to encourage current students to excel both personally and academically while at Mt. San Antonio College.
  - Purpose:
    - Agriculture Ambassadors will be responsible for assisting when needed with recruitment and public relations activities for the Agricultural Sciences Department at Mt. San Antonio College. The focus of the program will be assisting with the overall recruitment program of the Department. Ambassadors will visit with prospective students, parents, and the public about the programs offered at Mt. San Antonio College. Activities include both on and off campus events and programs.
  - Objectives:
    - The following objectives will guide the overall program:
      - To serve as a representative of Mt. San Antonio College and the Agricultural Sciences Department.
      - To gain valuable professional skills through interactions with faculty, staff, students, and potential students.
      - To assist when and where needed to help promote the Department.

F. The program regularly has students take part in CAL statewide leadership activities.

- The program is involved in statewide activities.

In the past, this is one area of our program that was significantly struggling. However, with the recent funding of the USDA Grant and our implementation of the Agriculture Ambassadors, the department has now been able to increase our involvement with the various statewide leadership activities.
G. The program has an alumni, boosters, or backers group that supports the educational program.

- The program has a very supportive alumni group and many industry representatives that support our educational program.

The Agricultural Science Department has been very blessed with our past and present student body. Whenever it is possible we are outreaching to our alumni for support of our program and we have been fortunate enough to receive an outpouring of support. In order to show our appreciation of alumni, every year we host an alumni barbecue. This BBQ provides a wonderful opportunity for the department to catch up with all our past students and find out what they have accomplished in the industry.
QUALITY CRITERIA #6 – INFORMATION AND LEARNING RESOURCES

A. The college provides the Agriculture/Natural Resources program with a computer laboratory facility for students to have access outside of normal classroom situations.

B. The college provides the Agriculture/Natural Resources program with adequate technology that reflects the agriculture industry.

- The Mt.SAC agriculture program has been fortunate enough to recently open its new Agricultural Sciences Complex. This amazing new building offers all the most current state-of-the-art facilities.

Our department has been so privileged to have this amazing four-structure complex comprising of classrooms and laboratories for horticulture, animal science and registered veterinary technology programs, as well as modernized farm buildings. These new facilities and labs have definitely ensured that our students are receiving adequate up-to-date education on the dynamic agricultural industry.
The Mt. San Antonio College Board of Trustees and President John S. Nixon cordially invite you to the Ribbon Cutting Ceremony for the

AGRICULTURAL SCIENCES COMPLEX

Friday, May 6, 2011 ~ Noon
1100 North Grand Ave. ~ Walnut, CA 91789

The $29-million, four-structure complex contains laboratories and classrooms for the horticulture, animal sciences and registered veterinary technology programs.

Ribbon Cutting Ceremony
Please park in Lot H. For campus directions, go to www.mtsac.edu/maps.
QUALITY CRITERIA #7 – FACULTY AND STAFF

A. The program utilizes only qualified full-time and adjunct faculty meeting the minimum local and statewide qualifications.

B. The institution has sufficient faculty and staff that are qualified by appropriate education and experience to support the Agriculture/Natural Resources program.

- There is a staff of 8 full-time faculty members for our program and some additional adjunct faculty.
  - 3 Horticultural Science Professors: Jennifer Garwick, Tom Visosky, and Brian Scott
  - 3 Animal Science Professors: Audra Lopez, Jamie Sakugawa-Phillips, and Dawn Waters
  - 2 Veterinary Technology Professors: Jean Hoffman, and Gary Uyeno

I have previously discussed the department’s qualified faculty and adjunct faculty as part of quality criteria 2. The information for quality criteria 2 can be applied for these quality criteria as well (please refer back to quality criteria 2).

C. The local faculty are compensated for extended time needed to maintain instructional programs.

D. Instructors are given release time or compensation for the development and coordination of industry internships for students.

- Release or re-assigned time is offered to specific instructors within the department.

The use of release time for the department was recently changed due to the new hire of our Farm Supervisor. At one point, all full time faculty shared some percentage of release time in order to be compensated for their additional farm duties. However, now that the department has a full time Farm Supervisor, release time has been restricted to the department chair and one faculty member, who has additional duties as the farm manager.

E. All full time instructors in the Agriculture/Natural Resources program regularly participate in professional development activities provided by VTEA Statewide AGNR Leadership funds.

- Each year all of our full time faculty participate in various statewide and national activities, which are supported through VTEA funding.

The Agricultural Sciences Program has 3 main sectors: Horticulture, Animal Science and Veterinary Technology. Faculty in each of these programs are annually attending conferences to make sure that the entire program stays relevant on all of the coursework we provide to our students. One of the main conferences faculty attend yearly is the CATA.

See Appendix H – VTEA

F. All instructors in the Agriculture/Natural Resources program regularly keep themselves current on degree and articulation requirements so they can advise students properly.

- The department keeps current on all degree and articulation requirements.

This particular criteria ties in directly with quality criteria 2 (program integrity) and quality criteria 4 (educational programs), both of which I have discussed previously. The methods our department uses to stay current on our courses...
and degrees offered allows us the opportunity to also stay current with our articulation process. As a result, we can then properly advise our students, whether they are incoming students from feeder high-schools or outgoing students pursuing a four year university.

See Appendix I – Articulation Agreements

G. All instructors keep current on Agriculture/Natural resources issues by working with their local industry advisory committees.

- The department meets with our advisory committees twice a year.

Since the department has so many facets there is an advisory committee for the Horticulture Sciences and an advisory committee for the Animal Sciences/RVT Program. Each advisory committee meets at least twice a year to discuss current events taking place in the industry. The advisory committees are made up mostly of industry representatives; therefore, our department is always staying relevant and meeting industry demands.

H. All faculty are routinely evaluated through college guidelines and go through a process of self-evaluation.

- All faculty undergo routine yearly evaluations, which follow the college guidelines.

The faculty evaluation process differs depending on which year you are in on your teaching cycle (i.e. adjunct faculty, probationary faculty, tenure faculty). Regardless, all faculty are evaluated and required to do year end self-evaluations.
Faculty, for your convenience we have provided you with the Business Division’s Faculty Handbook containing a wealth of information for all faculty. Below is the Table of Contents for the various chapters of the Handbook. Click on each topic to expand it.

## Faculty Handbook Table of Contents

1. Ordering Supplies
2. Work Order Procedures
3. Assignment Requests
4. Absence and Injury Reporting
5. Evaluations / Faculty Contract
   a. Adjunct Faculty Evaluations
   b. Tenure Faculty Evaluations
   c. Probationary Faculty Evaluations
   d. Evaluation Forms for 2010-2011
   e. Faculty Contract 2010-2011
6. Student Discipline Grievance
7. Faculty Resources
   a. Business Division Information
   b. My SAC College Information
   c. Getting Started
   d. Syllabus
   e. First Book
   f. Classroom Procedures
   g. Copying
ADJUNCT FACULTY EVALUATION PROCESS

The evaluation process for adjunct faculty consists of a 3-year cycle. At the beginning of each semester, you will receive a list of faculty who are in their 1st year of their 3-year evaluation cycle.

**Year 1**

- Classroom Visitation: REQUIRED
- Student Evaluations: REQUIRED
- Summary Evaluation: REQUIRED
- Self Evaluation & Year-End Report: OPTIONAL

**Year 2**

- Classroom Visitation: ONLY IF NECESSARY
- Student Evaluations: REQUIRED
- Summary Evaluation: REQUIRED
- Self Evaluation & Year-End Report: OPTIONAL

**Year 3**

- Classroom Visitation: ONLY IF NECESSARY
- Student Evaluations: REQUIRED
- Summary Evaluation: REQUIRED
- Self Evaluation & Year-End Report: OPTIONAL

**New Faculty**: New faculty immediately enter Year 1 of the cycle.

**Rehire Rights**: Part-time faculty who have been employed for 12 semesters or more, 3 of which occurred in the most recent 3 years, and whose 2 most recent evaluations were satisfactory, have priority of assignment for one class in their discipline.

For current evaluation forms, download the “Faculty Contract” from http://inside.mtsac.edu/, or contact the Division Office.
REGULAR (Tenure) FACULTY EVALUATION PROCESS

In a nutshell...

The evaluation process consists of a 3-year cycle:

Year 1
- Student Evaluations for each preparation
- Yearly Report of Supplemental Hours (due June 1)
- Self Evaluation Report (due June 1)

Year 2
- Classroom Visitations (minimum of 2)
- Yearly Report of Supplemental Hours (due June 1)
- Self Evaluation Report (due June 1)

Year 3
- Yearly Report of Supplemental Hours (due week 4 Spring)
- Faculty Administrative Evaluation (Dean completes)
- Regular Faculty Summary Evaluation (due week 4 Spring)

Note:

- Probationary Faculty exiting their 4th year of evaluation immediately enter Year 1 of the Tenure Evaluation Cycle the following year.

- Student evaluation results are summarized in your self evaluation report, but a more complete summary report can be produced for you by the Division Office per your request.

For current evaluation forms, download the "Faculty Contract" from http://inside.mtsac.edu/, or contact the Division Office.
In a nutshell...

The evaluation process consists of a 4-year cycle:

Year 1  **Semester 1**

Classroom Visitations for ea. preparation (by end 6\textsuperscript{th} week)

Student Evaluations for ea. prep. (by end 14\textsuperscript{th} wk)

Peer Evaluations (by end 14\textsuperscript{th} wk)

Portfolio Evaluation (by end 14\textsuperscript{th} wk)

**Semester 2**

Self Evaluation

Year-End Report of Accomplishments (by end Spring)

Activities as determined by Evaluation Team

Year 2  **Semester 1** (all due by end of 14\textsuperscript{th} week)

Classroom Visitations for ea. prep.

Student Evaluations for ea. prep.

Peer Evaluations

Portfolio Evaluation

**Semester 2**

Self Evaluation

Year-End Report of Accomplishments (by end Spring)

Activities as determined by Evaluation Team
Year 3  Due by the end of the spring semester
Classroom Visitations (selected preps determined by eval team)
Student Evaluations (selected preps determined by eval team)
Peer Evaluations
Self Evaluation
Year-End Report of Accomplishments (by end Spring)

Year 4  Semester 1
Classroom Visitations (if needed)

Note: Student evaluation results are summarized in your self evaluation report, but a more complete summary report can be produced for you by the Division Office per your request.

For current evaluation forms, download the “Faculty Contract” from http://inside.mtsac.edu/, or contact the Division Office.
QUALITY CRITERIA #8 – PHYSICAL RESOURCES

A. The institution has ensured that the Agriculture/Natural Resources program has adequate physical resources to support its educational services wherever and however they are offered.

B. The management, maintenance, and operation of the physical facilities ensure effective utilization and quality necessary to support the Agriculture/Natural Resources program.

C. Physical resource planning and evaluation supports program outcomes and are linked to the planning and evaluation efforts of the program and the institution.

D. The institution provides for a hands-on agriculture laboratory that provides for student outcomes necessary for the agriculture industry.

✦ With the opening of the new Agricultural Sciences Complex in addition to the Departments Farm Facilities, all of the quality criteria for physical resources have been met.

As I had mentioned previously, the department has just opened its new Agricultural Science Complex. This $29-million, four-structure complex contains laboratories and classrooms for the horticulture, animal sciences and registered veterinary technology programs. In addition to the new complex, the department has a fully functioning school farm which includes: beef, sheep, swine and horse units, pastures, a greenhouse and shade house space, an orchard, equipment shops, and a variety of labs.

✦ Facilities in Animal Sciences
  o The Agricultural Sciences programs have a number of excellent facilities where students can learn and put to use classroom theory and gain hands-on, practical experience using facilities that stand up to industry-wide standards.
  o The College Farm
    ✿ Beef Unit:
      • Feed storage buildings, covered pens, dry lots, natural pastures, and irrigated pastures all make up our Beef Unit facilities. We maintain a breeding herd of approximately 20 crossbred females used to breed project animals for our students.
    ✿ Sheep Unit:
      • Two barns are used for housing sheep used for student learning and projects: a project barn with a shearing area, and a lambing barn with pens for holding the ewes and lambs after they exit the jilus. We also have a working corral with cutting chutes and sorting pens. We have 30 acres of pasture for our flock of 45 Suffolk and Hampshire ewes and two stud rams. Lambs are raised and sold through a club lamb sale organized by students. The lambs go to 4-H and F.F.A. students where many champions have been purchased from the flock.
    ✿ Swine Unit:
      • A modern confinement swine unit with a farrow to finish program and several sows and a boar help our students gain practical experience in swine production.
    ✿ Horse Unit:
      • An eight-stall barn with two foaling stalls and a stallion barn and paddock with plenty of paddocks for young horses provide experience for students learning horse management. Training facilities include a bull pen, goose neck trailer, hot walker and plenty of trails to ride on. We also house an artificial insemination lab in the barn. Eight broodmares and a stallion as well as numerous offspring help provide students with practical experience working with horses.
Registered Veterinary Technology Facilities
   - The Registered Veterinary Technology facilities are located on the Mt. SAC campus utilizing classrooms and the entire college farm.
     - Classroom space includes a complete surgery room and Registered Veterinary Technology laboratory.
     - Lab animal facility and kennels.
     - Farm with domestic animals for use in the Registered Veterinary Technology classes.

Horticulture Program Facilities
   - The Horticulture Unit is located on approximately seven acres of land as part of the school farm with excellent facilities for practical, hands-on learning.
     - Horticulture Unit - Plant Sales
     - Greenhouse space totaling 12,000 square feet.
     - Shade house space totaling 56,000 square feet.
     - Three classrooms, including a landscape drafting lab, floral design lab, and plant propagation and nursery management lab.
     - Landscape power equipment shop.
     - Landscape irrigation and construction lab.
     - Turf plots.
     - Orchard.
     - Groundcover and herbaceous plots.
     - Large campus with many established ornamental plants to serve as a continual laboratory.
QUALITY CRITERIA #9 – FINANCIAL RESOURCES

A. The program has a system for financial planning to support program educational goals.
B. The program work within the governance structure of the college to secure college funding sources for the Agriculture/Natural Resources program.

- The college has an “unrestricted general fund adopted budget” for the year 2010-2011. The Agricultural Sciences Program works with the college to develop a departmental budget to meet the needs of the program yet stay within the parameters of the college’s allotted budget.

Before the beginning of the fiscal year the department meets to discuss the budget for the upcoming school year to develop a financial plan. The department’s budget is basically divided into two separate accounts. First, we have budgeted items for the instructional supplies account. The money provided for this account is set by the college and we must stay within the parameters provided. Second, we have budgeted items for the farm account. The department is allowed a little more flexibility with the farm account. We can create our own numbers for this account, but by the end of the year the money we requested for the account must be replenished from sales within the account.

See Appendix J – Budget-Farm Account
C. The institution provides sufficient human and financial resources to offer the programs and degrees and certificates.

- The college has an outstanding financial aid program to help students, who are in need of financial support.

The college provides excellent financial aid resources to the students at Mt. SAC. The Financial Aid Office is committed to helping students, who might not otherwise be able to attend college. There are a full array of financial aid programs, grants, work-study, loans and scholarships to full-time and part-time students. Most financial aid resources are intended to supplement, not replace, the financial resources of the family. The Financial Aid Office is available to help students with the cost of education, which includes fees, books, supplies, food, housing, transportation and childcare.

See Appendix K – Agriculture Department Scholarship Booklet

D. The program works with the local agriculture advisory committee to seek financial support from the agriculture industry for the program.

- The department meets with our advisory committees two to three times a year.

Since the department has many facets there is an advisory committee for the Horticulture Sciences and an advisory committee for the Animal Sciences/RVT Program. Each advisory committee meets at least twice a year to discuss current events taking place in the industry. The advisory committees are made up mostly of industry representatives; therefore, our department is always staying relevant and meeting industry demands. During our annual meetings finances are
discussed and the department reaches out to committee members that are industry representatives. Often instead of receiving monetary funds, the committee members help the department find jobs for those students who are ready to enter the industry. Additionally, some industry representatives will donate funds when the department is hosting certain events.

E. The program works with institutional administration to secure VTEA funding for the program.

- The department has a program representative, who attends all VTEA funding meetings.

Jennifer Garwick is the Agricultural Programs representative for all VTEA funding meetings. She attends VTEA meetings and then reports back to the department on items that were discussed in her meetings. To help tackle some of her responsibilities with VTEA, she created a sub-committee, which includes three other members from our department. They work together to create budget items to be proposed for VTEA funding. As a department we vote on these items and prioritize them based on importance and demand. After we have formulated our wish list, Jennifer submits our proposal to the VTEA committee. The department was fortunate for many years to be awarded with everything on our wish list. However, lately due to budget cuts our VTEA funding has also been cut drastically. Luckily, we are still awarded with some money and we are grateful to receive whatever is available.

See Appendix H – VTEA

F. The program operates the agriculture laboratory following industry standards in the production of agriculture commodities.

- Our program has some of the finest agriculture laboratory facilities, which allows the department to follow all industry standards in the production of agriculture commodities.

This particular criteria ties in directly with quality criteria 2 (program integrity), quality criteria 6 (information and learning resources), and quality criteria 8 (physical resources), all of which I have discussed previously. When looking at the program curriculum and up-to-date standards, indicated in quality criteria 2, and the department’s amazing laboratory facility and resources, indicated in quality criteria 6 and 8, it is easy to see that the program operates the agriculture laboratory following industry standards in the production of agriculture commodities. Please refer back to quality criteria 2, 6, and 8 for further clarification.
QUALITY CRITERIA #10 – GOVERNANCE AND ADMINISTRATION

A. The program faculty participate in the local governance process at the college.
B. The program faculty meet on a regular basis to conduct departmental operations.
C. The program leadership and faculty work with the institutional administration and board of trustees to effectively build the program.

❖ Our faculty meet on a continual basis to make sure we are meeting the needs of our program, department and college.

All faculty are required to meet for a variety of college, department and program events. Each semester all faculty are required to participate in the college process called Flex Day. Flex Day is an annual event, which focuses on interdisciplinary collaboration. Multiple presentations are given and departments and faculty have a chance to connect with other departments and faculty within the college. Aside from college governance, our department meets on a monthly basis to conduct departmental operations. On the fourth Thursday of every month the department meets for two hours to discuss and address specific agenda items. These meetings are continued throughout the year and many times the department will meet more than once a month. Furthermore, during these meetings program events will be discussed. Often times, faculty members will develop separate committees for certain program items and these committees will arrange additional meeting times to discuss those items. It is not unusual for each faculty member to attend at least one meeting a week, due to all the separate committees they are serving on.

D. A staff member serves as program leader and receives release time to fulfill these duties.

❖ Our department has one faculty member, who serves as department chair.

Our program department chair is Brian Scott. He is a Horticulture Sciences Professor, who has the additional duty of being our program leader. As department chair Brian receives 30% release time. This time is supposed to help him fulfill his duties as our leader. He definitely goes above and beyond what is required of him.
QUALITY CRITERIA #11 – ACADEMIC COLLABORATION

A. The program faculty and staff regularly meet with local 9-12 agriculture education managers and instructors to develop integration and articulations agreements recognizing the course content taught at the local high school level.

- The department keeps current on all articulation requirements.

This particular criteria ties in directly with quality criteria 2 (program integrity), quality criteria 4 (educational programs), and quality criteria 7 (faculty and staff), all of which I have discussed previously. The methods our department uses to stay current on our courses and degrees offered allows us the opportunity to also stay current with our articulation process. As a result, we can then properly advise our students, whether they are incoming students from feeder high-schools or outgoing students pursuing a four-year university.

Furthermore, each year our department holds a meeting for the agriculture teachers from high schools surrounding our county. At this meeting the articulation process is discussed by our lead contact Marie Tyra, who works with the college at the office of instruction. When she is done with her articulation presentation, individual faculty then meet with each high school teacher to help them draw up an initial articulation agreement. Once the agreements have been made the faculty and high school teachers remain in contact throughout the year and then finalize the agreements when the students have completed the articulation process.

See Appendix I – Articulation Agreements

B. Faculty regularly attend local 9-12 program activities and assist in the development and delivery of leadership training events such as parliamentary procedure, public speaking, etc.

C. Faculty regularly attend meetings and participate in local advisory committee activities at the 9-12 agricultural education programs in their service area.

- This is one of the criteria where our department can improve upon.

At the present time our department does not have an assigned faculty member, who is constantly in contact and attending meetings of our local 9-12 programs. However, the department does have a representative of the school, who stays in contact with these programs. Right now our Agricultural Ambassador leader is serving as our liaison between the college and high school programs. While this is working temporarily, our department really needs to step it up and assign specific faculty members to work with our surrounding high school programs. Each faculty member should be assigned 2-4 high schools, which they would then be responsible for staying in contact with and attending their meetings. If we can implement this strategy, then we will be able to build even stronger relationships with the 9-12 programs and we would have a much stronger recruitment program.

D. Program managers and staff communicate regularly with UC/CSU to assist in course articulation and student transfer processes.

- This is yet another criterion where our department can improve upon.
While we as a department have started to get better with the articulation process between the UC/CSU programs, there is still much work to be done. Hopefully, we can implement a plan and start having more meetings to try and work towards more articulation agreements with UC/CSU programs. We have a lot of students who transfer on to four-year universities, so it is crucial that we improve this area of our program.

E. Faculty and staff regularly attend Tech-Prep meetings and other educational activities that foster and encourage articulation and integration of programs at K-12 and community college levels.

❖ Our department has a Tech-Prep meeting at least once a year.

At this meeting the articulation process is discussed by our lead contact Marie Tyra, who works with the college at the office of instruction. When she is done with her articulation presentation, individual faculty then meet with each high school teacher to help them draw up an initial articulation agreement. Once the agreements have been made the faculty and high school teachers remain in contact throughout the year and then finalize the agreements when the students have completed the articulation process.

See Appendix I – Articulation Agreements
QUALITY CRITERIA #12 – COLLABORATION WITH INDUSTRY

A. The Agriculture/Natural Resources programs have established advisory committees that meet at least twice a year to review curriculum, review student learning outcomes, and fulfill advisory functions of the various instructional programs.

- The department meets with our advisory committees two to three times a year.

Since the department has many facets there is an advisory committee for the Horticulture Sciences and an advisory committee for the Animal Sciences/RVT Program. The Mt. SAC Agricultural programs maintain close associations with the businesses in the communities we serve. Industry leaders serve on our advisory committee to ensure our academic programs remain current and relevant to the industry and provide benefits to our students beyond the classroom, such as field trips, internships, and a real-world experience in a classroom setting.

B. Students are completing industry internships at sites relating to career goals.
C. Instructors are developing internship sites that support the industry and Agriculture/Natural Resources instructional programs.
D. The program maintains a list of approved internship sites for each major within the department.
E. The program utilizes a cooperative work experience program to place students in internships or jobs to foster relationships with the agriculture community.

- The program offers internships at approved sites that place students in jobs that are related to their career goals, and support and foster relationships with the agriculture community.

Each year we find that an increasing number of companies are choosing to hire permanent employees who have completed an internship with them. An internship is a temporary work assignment with a company or organization in which the intern is either paid or volunteers their time. It is an opportunity for students to gain hands-on training and experience, which will come in handy when applying for a permanent job. Internships look good on a résumé for a person who might otherwise have no relevant experience. Employers may use internships to see how an individual responds in a work environment before offering them permanent employment. Since the assignment is temporary, the employer has no obligation to hire the intern once an internship is over, and is therefore more apt to bring a person on as an intern first to see how well they do.

Our department utilizes many internship programs to help our students become successful at long term employment. A list of our work experience and internship programs can be found in the individual handbooks for each of our departments programs.

See Appendix L – Advisory Committee Handbook
A Guidebook to
Student Learning Outcomes
and
Administrative Unit Objectives

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I can no other answer make,
but thanks, and thanks.

- William Shakespeare

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All errors and omissions are the sole responsibility of the authors.
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PURPOSE

Three principal assessment efforts are currently under way at Mt. San Antonio College (Mt. SAC). These are:

- student learning outcomes (SLOs),
- administrative unit objectives (AUOs), and
- general education outcomes (GEOs)

This guidebook introduces the fundamentals of SLOs and AUOs. It begins with a brief overview of outcomes assessment and the context in which it exists. Then, it explores what SLOs and AUOs are, what they are for, and most importantly, practical strategies to develop, assess, and use them.

GEOs are statements that define the knowledge, skills, and perspectives acquired by students who satisfy the general education requirements. A GEO is a college-level outcome and a type of SLO. More information about this third type of assessment effort can be found at http://www.mtsac.edu/instruction/generaled/

A few overarching themes are woven throughout this guidebook:
1. Assessment will help you serve your students and clients more effectively;
2. All campus constituencies can and should engage in SLOs and/or AUOs; and
3. Assessment plays a central role in institutional effectiveness.

This guidebook was approved and adopted by the Academic Senate on September 18, 2008. It is the first attempt to develop a reference to assist with the development of SLOs and AUOs. Any feedback to improve the organization or content would be appreciated. Furthermore, to maintain currency and relevance in order to best serve a dynamic academic environment, the guidebook is subject to changes and revisions. It is a living document and any suggestions for modifications to the guidebook or general comments should be sent to the Office of Research and Institutional Effectiveness at Mt. SAC.
BACKGROUND

A Brief History

Mt. San Antonio College has been working with student learning outcomes and administrative unit objectives for many years. The efforts of a three-year project between 2004 and 2007, spearheaded by the SLO Implementation Team, resulted in many of the concepts and models explained in this guidebook. In spring 2008, the Academic Senate approved a plan and a timeline submitted by the Student Learning Outcomes Committee to assist with the application and integration of SLOs. The approved SLO plan and timeline can be found on the Academic Senate’s website at http://www.mtsac.edu/administration/senates/academic/documents/SLOPlan.pdf

Introduction

Learning expectations are stated in the form of student learning outcomes (SLOs) and service expectations in the form of administrative unit objectives (AUOs). SLOs are broad statements about what students will think, know, feel or be able to do as a result of an educational experience. AUOs are statements about either what clients will experience, receive or understand as a result of a given service or what the unit can provide, improve, increase or decrease. In order to determine whether these expectations have been met, an assessment is performed.

Assessment is the continuous process of collecting, evaluating, and using information to determine if and how well performance matches learning or service expectations. For assessment to be truly effective, it must be meaningful, reflective, and self-regulated. The purpose of assessment is to use the results, positive or negative, to stimulate meaningful dialogue about how instruction and instructional and non-instructional services can be modified to engage students in the learning process and sustain institutional effectiveness. Institutional effectiveness reflects how well the college is meeting its mission and goals. The mission of Mt. SAC is “to welcome all students and to support them in achieving their personal, educational, and career goals in an environment of academic success.” One of the ways that the college can determine if and how well its mission has been achieved is through the process of assessment, specifically through SLOs and AUOs.

Discussions borne out of assessment efforts are intended to address student needs and service issues, not to evaluate the individual faculty members or the departments.

In short, assessment of SLOs aims to provide data to fuel conversations about what is taught, how it’s taught, and how students will best benefit from their educational experiences. Assessment of AUOs encourages conversations about what services are provided, how they are provided, and how clients will best benefit from the services. Conversations surrounding SLOs and AUOs aim to address the following questions:
• What were your expectations regarding student learning or client experiences?
• How did the actual student performances/client responses compare to the expected outcomes/objectives for your course/program/service?
• Are improvements needed?
• What can be done to improve student learning, student success or client experiences?
• What types of resources are necessary to meet your learning or service expectations?

Though it has been presented in recent years against a backdrop of accountability, transparency, and accreditation, outcomes assessment is inherently a good practice for maximizing student learning and client experiences. It provides a systematic means to evaluate the effectiveness of a practice, a service, a department, and the institution. One noteworthy trend is the transition from a teaching-centered model to a learning-centered model. In other words, the focus has shifted from "What was covered in the course?" to "What did the students take away from the course?"

The BEST part is that you've been doing the majority of this all along!

When you make modifications to your teaching based on how students fared on an assignment or when you incorporate internal changes based on how the campus is using your services, you are engaging in data-driven decision making. The next step is to **articulate** it!

Whether you are highlighting the achievements or discovering areas of opportunities and growth, it is important to share these with your students, your clients, and the campus at large. In order for the campus to evaluate its overall effectiveness as an institution, it is helpful to use a framework with consistent language and a common model for documentation. That is where the SLOs and AUOs come in. It is essential to keep in mind that SLOs and AUOs are self-regulated. You have the greatest knowledge on what your students and clients need and what efforts are necessary to deliver the optimal educational and service experience.
SLO OR AUO?

The following diagram aims to help you and your department decide the type of assessment in which to engage.
STUDENT LEARNING OUTCOMES

What is a student learning outcome?

A student learning outcome (SLO) is a statement about what a student will think, know, feel or be able to do as a result of an educational experience.

A student can be anyone engaged in learning, such as:
- a Mt. SAC student
- a faculty member
- a staff member
- a parent
- a high school student

An educational experience can include the following:
- a topic/unit
- a course
- a program
- a certificate/degree

SLOs are statements that identify specific knowledge, skills, abilities, or attitudes that students will demonstrate as a result of engaging in a particular learning experience. Most traditionally, SLOs are developed for the instruction areas. For example, the Photographic department has the following SLO: “Students completing Beginning Photography will know two core skills of exposure control (i.e. f/stop and shutter control).” SLOs can also include service or non-instructional areas that still provide educational experiences for students. For example, the Financial Aid Office has the following SLO: “Students attending introductory scholarship workshops will identify the steps in the application process for the Mt. SAC Scholarship Program.”

Designed and developed by faculty, the assessment of SLOs within the instruction area provides evidence that learning has occurred as a result of a specific educational experience such as a class topic, course, program, or award (e.g. a certificate, degree). SLOs within the service or non-instructional areas are designed and developed by the staff and manager(s) and serve a similar purpose. SLOs must be measurable so that the difference between the expected achievement and the actual achievement can be identified and narrowed. Even though outcomes may be defined for a course, program or service, they are fluid and revisible. Examples demonstrating the diversity of SLOs are listed at the end of this section.

It is imperative to note here that faculty members have the responsibility for SLOs and thus, the authority on how they will be developed and assessed.

SLOs are connected to planning (see section on Planning for Institutional Effectiveness). The outcome statement is developed and assessed. Then, the data is collected, summarized, and analyzed. From the results, the faculty and/or the department plan
for improvement. Improvements could include curriculum revisions, increased faculty/staff training, equipment purchases, software modifications, and implementation of new teaching techniques.

The section on the Eight-Step Process will outline and detail how to assess an SLO and an AUO. The Toolbox in Appendix A provides some assessment examples.

**SLOs, grades, and measurable objectives**

SLOs differ from other learning indicators such as grades and measurable objectives. Grades measure the overall performance by an individual student in a certain course. It is very difficult to trace back the learning of specific skills from a general grade. For example, if a student gets a “B” in the course, it is not possible (without checking the student records) to determine which topics within the course were grasped well by the student. Faculty members teaching various sections of a particular course could vary in their combinations of these factors to produce grades. Grades provide a very succinct way to summarize how the student fared overall in a course but are not able to illustrate the students’ level of understanding and acquisition of specific skills.

Grades are student-specific. In contrast, SLOs are meant to be skill-specific. Instead of how many students received ‘A’s and ‘B’s in the course, how many of them were able to demonstrate a specific skill central to the course? SLOs focus on how students perform in particular skills that are taught in a course instead of the overall performance. Moreover, they are intended to determine what students would get out of a course regardless of which section they selected or which faculty member they had. Thus, the SLO should be at the course-level (ex. English 1A SLO) not at the classroom- or section-level (ex. English 1A Reference # 9999999 SLO).

As demonstrated in Table 1, although Student 2 and Student 3 received the same overall grade, they varied in their performance on the assignments. Furthermore, the variety of overall grades obscures the fact that all of the students fared poorly on Assignment 2. Thus, SLOs can be described as statements about the skills exhibited through the various major assignments within a course (i.e., looking at the results vertically instead of horizontally). The Toolbox in Appendix A provides some methods that can be used for assessment.

**Table 1. Assignment Grade by Overall Course Grade**

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<tr>
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<th>Assignment 1</th>
<th>Assignment 2</th>
<th>Assignment 3</th>
<th>Overall Grade</th>
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<tbody>
<tr>
<td>Student 1</td>
<td>A</td>
<td>D</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Student 2</td>
<td>C</td>
<td>D</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Student 3</td>
<td>A</td>
<td>F</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>Student 4</td>
<td>B</td>
<td>D</td>
<td>F</td>
<td>D</td>
</tr>
</tbody>
</table>

SLOs also differ from measurable objectives. Measurable objectives encompass the content of a course and are expressed in statements about the material that will be taught in a course. SLOs build on the course’s measurable objectives but rather than
focus on course content, they focus on the learning that will occur as a result of taking the course. At Mt. SAC, in some cases, measurable objectives are framed very similarly to SLOs and can be easily converted. This is especially true in the case of vocational courses which already have skill requirements. In other cases, measurable objectives link to discrete, basic, and singular skills. Thus, multiple measurable objectives can be linked together to create a broader, higher-level student learning outcome. SLOs can also be developed to measure learning that has accompanied the content, such as confidence or thinking like a biologist, even if it is not a measurable objective.

SLOs can also be incorporated into your syllabus and in the course/program descriptions. Through this process of transparency, the students will benefit from knowing what outcome to expect (as well as the associated criteria) as a result of the education experience. Furthermore, they will be more understanding of the grading system in the course since the criteria for measuring their performance will be shared. In addition to students, the public also has an opportunity to see the expectations set for a course or program.

Examples: Course-level SLOs

- **Spanish:** Spanish 1 students will be able to demonstrate their reading comprehension of a paragraph containing Spanish 1 level vocabulary and grammar.
- **Biology:** Microbiology 22 students are able to demonstrate aseptic techniques that are appropriate for the allied health fields.
- **Air Conditioning and Refrigeration:** Air Conditioning 20 course completers will handle and transfer refrigerants.
- **Nutrition & Food:** NF 10 students will evaluate the nutritional adequacy of their present diet. This analysis will be based on governmental or NAS (National Academy of Sciences) standards.
- **Office Technology:** COMP 1B students will be able to touch type effectively.
- **Music:** Music 16 students will be able to:
  - perform technical exercises with competence
  - perform the 12 major scales on their instrument.
- **Math:** Math 71/71B students will
  - feel more confident in their ability to solve word problems.
- **ESL:** ESL Students exiting Level 5 will be able to report orally the results of an interview with a native English speaker in the community or the workplace.
- **Communications:** Speech 1A students will be able to perform basic speech delivery skills.
- **Natural Sciences:** Anatomy 35 students will be able to:
  1. Master Human Muscle Anatomy including the name, location, and attachments (origin and insertion) of muscles
  2. Master the pathway of sequential structures in humans such as blood vessels, nerves, respiratory and urinary passages
  3. Master the anatomy of the Human Skeletal System including names of bones, whether a “paired” bone is from the left or right side of the body, and diagnostic features of bones
• **Business**: BUSC 1A Students will:
  o understand the use of Fiscal Policy
  o understand the use of Monetary Policy

**Examples: Program-level SLOs**

• **Fashion Merchandising and Design**: Core Unit Completers of Fashion Merchandising and Design will fabricate garments of their own design.

• **Fire Technology**: Graduates of the Fire Protection program will be technically proficient in the inspection of building fire protection systems.

• **Computer Information Systems**: Level 1 Computer and Networking Technology program completers will be prepared to take the A+ Certification Exam.

• **Agriculture**: Registered Veterinary Technician program completers will demonstrate professional behavior in the field.

• **Nursing**: Nursing Program completers will score above the national average on the Comprehensive Predictor Exam.

• **Math**: Students in developmental math courses will feel more confident in their ability to solve word problems.

• **Aviation Science**: Aviation Science program completers will prepare for the FAA Academy.

• **Radiology**: Radiology program completers will competently perform radiographic procedures as entry-level technologists.

• **Air Conditioning and Refrigeration**: AIRC program completers will gain employment in their fields of study.

• **Medical Services**: Paramedic program completers will be prepared for hospital internships.

• **Histotechnology**: Graduates will successfully pass the Histotechnician American Society for Clinical Pathology (ASCP) exams.

**Examples: SLOs from Service Units**

• **Financial Aid Office**: Students attending scholarship personal statement/essay workshops will list the methods used for constructing a competitive scholarship personal statement/essay for the Mt. SAC Scholarship Program.

• **Student Learning Outcomes Team**: As a result of attending a POD training session, faculty members will be able to develop a student learning outcome statement and assessment plan for their course(s).

• **Technology and Health Division Office**: Programs in the Technology and Health Division will create correctly formatted SLOs for assessment.

• **Student Life**: AS Student Officers will increase their leadership knowledge and skills confidence after completing the one-day mandatory officer training.
ADMINISTRATIVE UNIT OBJECTIVES

What is an administrative unit objective?

An administrative unit objective (AUO) is a statement about what a client will experience, receive, or understand as a result of a given service.

A client can be anyone receiving a service, such as:
- a Mt. SAC student
- a faculty member
- a staff member
- a parent
- a high school student

A service can include the following:
- training sessions
- development of facilities
- professional development

AUOs are statements that identify client responses to a certain service that your department provides. They identify activities that are critical and central to the unit. Designed and developed by your department, these statements provide evidence that positive client reaction has occurred as a result of a specific service. These statements are very similar to SLOs in that they examine the result of an experience but AUOs deal exclusively with non-instructional services provided to students or other members of the campus community. The Printing Services department has the following AUO: “Faculty will experience improved access to Printing Services by making it easy to submit print jobs via the web.”

It is imperative to note here that your department (faculty, managers and classified staff) has the responsibility for AUOs and thus, has the authority on how they will be designed, developed, and assessed.

AUOs are connected to planning (see section on Planning and Institutional Effectiveness [PIE]). The objective is developed and assessed. Then, the data is collected, summarized and analyzed. From the results, the unit plans for improvement. Improvements could include increased staff development, equipment purchases, software modifications, and process development.

AUOs are generally tied to the non-instructional areas of student support services but can include any unit, office, or department that provides any service to any individuals (whether they are students are not) in order to directly or indirectly maximize student success.
The Eight-Step Process will outline and detail how to assess an AUO. The Toolbox in Appendix A provides some assessment methods. Of the many methods offered in the appendix, the following may be the most relevant for AUOs:

- Focus groups
- Surveys
- Pre-/Post- analysis
- Interviews

Examples: AUOs

- **ESL:** The Student Data Team (ESL) will improve the percentage of complete data sets (intake, test, and update forms) required to report benchmark gains to CASAS (Federal Grant).
- **Library:** Patrons will be satisfied with the library facilities.
- **Nursing:** Employers will be satisfied with the educational preparation of Mt. SAC nursing graduates.
- **Food Services:** Dining Services will increase student usage of the Dining Services card.
- **Academic Technology Support Group:** The ATS department will invent in [their] employees through education and training leading to technical certification.
- **Admissions and Records:** The successful application, registration, fee payment and record maintenance of students are all critical elements of a student’s success while attending Mt. SAC. Students will demonstrate an increased usage of technology through the provision of information and services to students regarding these functions showcasing the importance and ease of using current technology related to the services and programs we provide.
- **Bridge Program:** Students enrolled in two additional English clusters added to Summer Bridge 2008 will have an increase retention rate of 30% above a stand alone English 67 and 68 courses.
- **Career/Transfer Services:** Increase student, faculty and staff awareness of Career Placement and Transfer activities, events and services.
- **Center of Excellence:** Regional administrators and faculty members will be satisfied with the quality of information provided to them by the center.
- **College Information Services:** The CIS department will provide education and training for our employees.
- **Library & Learning Resources Division Office:** Improve communication between the Division office and departments within Division. Division staff will be satisfied with quality of communication.
- **Mailroom:** The Mail Services unit will provide timely and accurate mail services campus-wide.
PLANNING FOR INSTITUTIONAL EFFECTIVENESS (PIE)

A college can measure its institutional effectiveness through a continuous cycle of planning, assessing, and improving set in motion by measurable college goals (designed for problem solving or quality improvement) that are derived from the college mission. Based on the college's mission statement, planning involves deciding the college's focus/priorities, setting institutional goals, developing institutional/departmental strategies, outlining tasks and creating schedules to measure if the goals are reached, evaluating the outcome and doing it all again (i.e., think, plan, do, and evaluate cycle). In order to evaluate a college’s effectiveness, it is important to start at the unit/office/department level first. The Planning for Institutional Effectiveness (PIE) process at Mt. SAC is used to document the efforts at various levels (i.e. unit/office/department, division, area). The planning cycle is demonstrated in the following diagram:

Assessment efforts including SLOs and AUOs can be documented in accreditation reports as well as the PIE process. Each unit, office, and department on campus completes this annual document to record the environmental conditions, short-term and long-term goals, assessment efforts, and resources required for the unit/office/department to function as efficiently and effectively as possible. Though it is submitted once a year during the spring, it is intended to be a living document that should be continuously referred to, modified, and updated. It can be completed electronically through a software program called TracDat and thus, the electronic document is referred to as e-PIE.

The next page displays the Institutional Planning Framework. It displays the components of the PIE process and the connection between the PIE process and campus decisions. When a unit, office, or department completes its PIE process, the document is submitted to the Vice-President. In the Instructional Area, it is first submitted to the relevant Division. The Vice-President, in turn, summarizes all of the PIE documents within his/her area to create an Area PIE summary. The Institutional Effectiveness Committee then creates a final PIE summary for the campus and presents it to the President’s Advisory Council. The Council decides how to use this information in its process of making campus-wide decisions such as hiring, resource allocation, etc.

The e-PIE manual can be obtained through the Information Technology (IT) department. The 2007-08 PIE paper version can be found at http://inside.mtsac.edu/organization/committees/iec/docs/2007-08_pie_form.doc The 2007-08 Final PIE Summary created by the Institutional Effectiveness Committee will be available on its webpage by the end of fall 2008.
INSTITUTIONAL PLANNING FRAMEWORK

Planning for Institutional Effectiveness (PIE)

Institutional Mission
  ↓
College Goals
  ↓
Team Goals
  ↓
Internal/External Conditions
  ↓
Department/Unit Goals

SLO/AUO
Means of Assessment
  ↓
Criteria for Success
  ↓
Summary of Data
  ↓
Use of Results

Strategic Actions

Goal Implementation/Resources Needed
  ↓
Division's Summary
  ↓
Vice-President's Summary

Institutional Effectiveness Committee (IEC)
Summary to President's Advisory Council (PAC)

Continue the PIE Process

All Other Planning Activities:
-Budget, resource allocation, facilities planning, hiring, educational planning, technology, SLO/AUOs, general education outcomes (CEOs)
THE EIGHT-STEP PROCESS FOR SLOS AND AUOS

Getting started is the hardest part but just remember that you have been doing a portion of this all along. The Eight-Step Process outlined below provides a clear and tangible way to articulate your efforts. The intention of the process is to provide a step-by-step layout of how to develop SLOs and AUOs, how to assess them, what to do with the data, and how to use the findings. It also explains how to document your efforts with the model that is used by the campus. By establishing and maintaining a documentation process, it is easier for you and your department to see what work has been done, how it went, and what actions need to be taken to meet the goals and needs of your department.

Developing and assessing SLOs and AUOs is a process and the following steps are intended to serve as a set of guidelines. It is imperative to look at the culture within your department or program to determine how this process will best be implemented. The Eight-Step Process for developing SLOs and AUOs is listed below:

<table>
<thead>
<tr>
<th>STEP</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preliminary Discussion</td>
<td>Schedule a faculty/staff meeting to brainstorm ideas for outcomes and/or objectives.</td>
</tr>
<tr>
<td>2. SLO/AUO Statements</td>
<td>Develop a list of measurable SLO/AUO statements.</td>
</tr>
<tr>
<td>3. Assessment Plan</td>
<td>Develop an assessment plan for each SLO/AUO.</td>
</tr>
<tr>
<td>4. Data Collection</td>
<td>Assess student learning or client experiences.</td>
</tr>
<tr>
<td>5. Data Analysis and Summary</td>
<td>Aggregate and analyze the data.</td>
</tr>
<tr>
<td>6. Closing the Loop</td>
<td>Determine ways to use the data and make applicable revisions to the curriculum, departmental processes, and the outcomes/objectives.</td>
</tr>
<tr>
<td>7. Documentation</td>
<td>Incorporate your SLO/AUO process into your electronic Planning for Institutional Effectiveness.</td>
</tr>
<tr>
<td>8. Continuous Cycle</td>
<td>Repeat the process continuously focusing on various SLOs/AUOs as relevant.</td>
</tr>
</tbody>
</table>

No matter your final results, “Success is not final; failure is not fatal; it is the courage to continue that counts.” - Winston Churchill.
The Nichols’ 5-Column Model

Mt. SAC has used the Nichols’ 5-column model (Table 2 and Appendix B) to provide a framework for developing and assessing SLOs and AUOs. The model has also been incorporated into the college’s Planning for Institutional Effectiveness (PIE) program review process. Many of these steps correspond directly to columns in the model. The next table displays the correspondence. The column headings denote the five columns of the Nichols’ 5-Column Model and the steps relate to the Eight-Step Process.

Table 2. Nichols’ 5-column model

<table>
<thead>
<tr>
<th>COLUMN 1: Mission/Goals</th>
<th>COLUMN 2: Intended Outcomes/ Objectives</th>
<th>COLUMN 3: Means of Assessment/ Criteria for Success</th>
<th>COLUMN 4: Summary of Data</th>
<th>COLUMN 5: Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mission and applicable goal(s) of the program, department or administrative unit.</td>
<td>What will the student think, feel, know or be able to do as a result of a given educational experience?</td>
<td>What are the criteria for success? What tools will be used to establish and measure success?</td>
<td>Summarize the findings. How close were the results to the criteria for success?</td>
<td>What do the data tell us about our process? What, if anything, do we need to do to our course, program or department to improve? What resources are necessary?</td>
</tr>
</tbody>
</table>

Step 1  
Step 2

Step 3

Step 4  
Step 5

Step 6

e-PIE

Step 7

Cycle

Step 8
Step 1: Preliminary Discussion

Schedule a faculty/staff meeting to brainstorm ideas for outcomes and/or objectives.

For SLOs, the meeting should include faculty members teaching the course or program to be assessed. When developing SLOs, the focus is to identify what the students should be able to know, think, feel or do with the central knowledge, skills, and abilities gained from a course or finishing the program.

For AUOs, staff and managers (and faculty members, where appropriate) should be included to brainstorm and identify what services will be selected for evaluation. When developing AUOs, the focus is on what the client gains, experiences or receives from a service.

Other individuals could be included as applicable such as the chair, manager, classified staff or advisory committee members. The focus of the meeting is to identify the central knowledge, skills, abilities, attitudes, or experience that a student/client would walk away with after taking a course or program or receiving a service.

Regardless of which outcome(s) or objective(s) you select as a group, make sure that they are relevant to your course/program/department. This can be confirmed by looking at your mission statement and/or your department’s short-term and long-term goals. Alignment to your program or department goals is important and enables the process to be more logical and relevant.

There are many challenging points in the process that make abandoning the process seem attractive. The following three factors are aimed to ensure that the process has the solid foundation to reach the end of the assessment cycle:

- **Central**
  Ensure that any outcome/objective upon which you decide is central to your course/program/department. This will ensure the greatest amount of buy-in from various individuals and thus, have the best chance of being completed. This will enable the widest impact on student learning, student success and client experience.

- **Feasible**
  Look at your resources (human, time, technological, etc.) and determine whether the outcome and its assessment are feasible. Is it likely that the process could be accomplished or is it wishful thinking? A reality check helps determine the likelihood of success in following through with the assessment.

- **Meaningful**
  Are you selecting the outcome/objective because it is easy to measure or because you really think it is important to measure? It is recommended that you select something that your group is curious about, something that will make a positive impact for your students/clients, and something you will be interested in starting and completing the assessment process.
Step 2: SLO/AUO Statements
Develop a list of SLO/AUO statements.

Develop a first draft of a list of outcomes/objectives. Bear in mind that even though they are defined, they are not static. Outcomes and objectives are dynamic. They are subject to periodic revision in order to maintain currency and relevance and most importantly, continue to meet the needs and expectations of the students and clients. However, if they continue to be relevant through time, they do not need to be changed.

Think about the big picture. Set realistic goals and have high expectations (those that require higher-level thinking such as synthesis of basic skills) of your students or clients. Discuss the kinds of student product or client output that might demonstrate these expectations so that the performance can be measured.

As mentioned above, it is neither necessary nor efficient to start from scratch when developing outcomes/objectives. The following are some resources where outcomes/objectives might already exist:
- Look at goals and outcomes from another course, program, or department that is similar to yours but external.
- Professional organizations may have broad outcomes/objectives which can be revised to become applicable to your course/program/department.

Career and Technical Education (CTE) programs should consult their advisory committee, accrediting boards or professional organizations. These groups can easily define which abilities, attitudes or skills program completers should have in order to be successful in their occupation.

The following are some guiding questions to help you and your team come up with SLOs and AUOs:

<table>
<thead>
<tr>
<th>SLO</th>
<th>AUO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think about a course completer or program graduate. What kind of course/program experience would allow for the greatest student success?</td>
<td>Think about a client who will receive a certain service. What kind of service experience would allow for the greatest client satisfaction?</td>
</tr>
<tr>
<td>As a result of this course/program: • What should this student know or understand? • What will this student be able to do? • What kind of skills or values will this student possess?</td>
<td>As a result of this service: • How should this client act? • What kind of attitude should this client possess? • What will the client gain?</td>
</tr>
</tbody>
</table>

When considering the questions above, think about how you will know whether or not your students or clients have performed as you had intended for them to perform. What
will the students or clients do to provide evidence that they have successfully met your expectations?

It is also important that your outcomes/objectives are measurable. Can they be observed or tested? Can accurate and reliable data be collected for the objective? One way to ensure that an SLO or an AUO is measurable is to use action verbs (such as demonstrate, apply, recall, evaluate), since action on the students' or clients' part will result in an overt behavior that can be measured. Avoid terms like 'become aware of', 'appreciate', 'learn' or 'understand' since they are not observable.

A major element in planning your SLO/AUO assessment is to determine what tool you will use to determine whether or not (and how well) your students or clients have met your expectations. Thus, the assessment tool is very important. Consider using existing materials or processes. Look at what is already being done to minimize any duplication of effort. For SLOs, use your syllabi, course outlines or textbooks and choose one or two major assignments/activities that you give regularly that you feel are central to the course. This can also be applied to the non-instructional side. For AUOs, discuss any service checks that you perform on an ongoing basis. Regardless of what you select as a group to assess, it must be important to you! And, remember to keep it simple, especially when you are starting out!

**How to write a STUDENT LEARNING OUTCOME**

In one sentence, describe one major piece of knowledge, skill, ability, or attitude that a student will have gained by the end of your course or program. Make sure that the SLO represents a fundamental result of the course and aligns with other courses in a sequence, if applicable.

There is no need to reinvent the wheel. It may actually help to work backwards. What are you already doing in the course/program that you feel is central to the course/program? Take a look at your course assignments or syllabus. If there were just a couple of topics that you could teach the students from the entire course/program, what would they be? Another approach would be to make a list of all of your major assignments and try to extract the central piece of knowledge, skill, ability, or attitude that you are intending for the students to capture.

A set of guidelines has been developed to help you evaluate your SLO progress. The checklist is provided as **Appendix C**. It includes the following questions:

1. Have you indicated whether your outcome is course-level or program level?
2. Does it align with department goals?
3. Is it central to the course/program?
4. Is it reasonable given the ability of the students?
5. Does it explicitly state what the students will think, know, feel or be able to do as a result of the course/program?
6. Is it measurable (observable)? (Hint: Use action verbs.)
Bloom's taxonomy (see diagram) is a very useful framework for describing SLOs. It identifies a hierarchy of cognitive learning outcomes from lower-level to higher-level thinking abilities. It starts at the basic knowledge level and works through the evaluation level. A variety of action verbs are provided to assist with measuring specific student abilities and skills. The great benefit of these verbs is that they are action verbs and thus, observable and measurable! Since SLOs can address a variety of learning from simple memorization and recall of basic facts to complex analysis and evaluation skills, Bloom's taxonomy is especially effective.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cite</td>
<td>Associate</td>
<td>Apply</td>
<td>Analyze</td>
<td>Arrange</td>
<td>Appraise</td>
</tr>
<tr>
<td>Count</td>
<td>Classify</td>
<td>Calculate</td>
<td>Appraise</td>
<td>Assemble</td>
<td>Assess</td>
</tr>
<tr>
<td>Define</td>
<td>Compare</td>
<td>Classify</td>
<td>Calculate</td>
<td>Collect</td>
<td>Choose</td>
</tr>
<tr>
<td>Draw</td>
<td>Compute</td>
<td>Demonstrate</td>
<td>Categorize</td>
<td>Compose</td>
<td>Compare</td>
</tr>
<tr>
<td>Identify</td>
<td>Contras:</td>
<td>Determine</td>
<td>Classify</td>
<td>Construct</td>
<td>Criticize</td>
</tr>
<tr>
<td>List</td>
<td>Differentiate</td>
<td>Dramatize</td>
<td>Compare</td>
<td>Create</td>
<td>Determine</td>
</tr>
<tr>
<td>Name</td>
<td>Discuss</td>
<td>Employ</td>
<td>Debate</td>
<td>Design</td>
<td>Estimate</td>
</tr>
<tr>
<td>Point</td>
<td>Distinguish</td>
<td>Examine</td>
<td>Diagram</td>
<td>Formulate</td>
<td>Evaluate</td>
</tr>
<tr>
<td>Quote</td>
<td>Estimate</td>
<td>Illustrate</td>
<td>Differentiate</td>
<td>Integrate</td>
<td>Grade</td>
</tr>
<tr>
<td>Read</td>
<td>Explain</td>
<td>Interpret</td>
<td>Distinguish</td>
<td>Manage</td>
<td>Judge</td>
</tr>
<tr>
<td>Recite</td>
<td>Express</td>
<td>Locate</td>
<td>Examine</td>
<td>Organize</td>
<td>Measure</td>
</tr>
<tr>
<td>Record</td>
<td>Extrapolate</td>
<td>Operate</td>
<td>Experiment</td>
<td>Plan</td>
<td>Rank</td>
</tr>
<tr>
<td>Repeat</td>
<td>Interpolate</td>
<td>Order</td>
<td>Identify</td>
<td>Prepare</td>
<td>Rate</td>
</tr>
<tr>
<td>Select</td>
<td>Locate</td>
<td>Practice</td>
<td>Inspect</td>
<td>Prescribe</td>
<td>Recommend</td>
</tr>
<tr>
<td>State</td>
<td>Predict</td>
<td>Report</td>
<td>Inventory</td>
<td>Produce</td>
<td>Revise</td>
</tr>
<tr>
<td>Tabulate</td>
<td>Report</td>
<td>Restructure</td>
<td>Question</td>
<td>Propose</td>
<td>Score</td>
</tr>
<tr>
<td>Tell</td>
<td>Restate</td>
<td>Schedule</td>
<td>Separate</td>
<td>Specify</td>
<td>Select</td>
</tr>
<tr>
<td>Trace</td>
<td>Review</td>
<td>Sketch</td>
<td>Summarize</td>
<td>Synthesize</td>
<td>Standardize</td>
</tr>
<tr>
<td>Underline</td>
<td>Tell</td>
<td>Solve</td>
<td>Test</td>
<td>Write</td>
<td>Test</td>
</tr>
<tr>
<td></td>
<td>Translate</td>
<td>Translate</td>
<td></td>
<td></td>
<td>Validate</td>
</tr>
<tr>
<td></td>
<td>Use</td>
<td>Use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write</td>
<td>Write</td>
<td></td>
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</table>

source: Bronx Community College Institutional Research (http://www.bcc.cuny.edu/InstitutionalResearch/Assessment.html)
The diagram below is another representation of Bloom’s taxonomy. It identifies the transition from lower-level to higher-level thinking by moving clockwise from Remember/Analyze to Evaluate.

Hints for writing SLOs:
- Make sure the outcome can be tested or assessed.
- Have a manageable number of outcomes. Maybe a course/program/department could develop 2-4 outcomes. Try to pare down the outcomes to those that truly reflect the major skills or knowledge that students will take away from the course/program/department.
- When developing your outcomes, keep in mind what kind of student product (i.e. assignment, test, project) will help you decide if the expectations have been met.
- Define any terms that individuals outside of the course or program would not be able to readily understand.
- A word of caution about assessing the ‘feel’ component. Attitudes may appear easy to assess but they require a lot of thought and specificity. Ask yourself if the attitude of the students is necessary for course/program success. Would it be acceptable if the student didn’t have the expected attitude but met the other expectations regarding knowledge, skills and abilities? What is the priority?
• When starting out, try not to get in over your head with the number or difficulty of the statements. Keep your statements simple and assess one main skill at a time. A rule of thumb is to have 2 SLOs per course, 2 SLOs per program, etc.
• If multiple skills can be synthesized to build a major skill, feel free to create one SLO. Don’t bundle unrelated items – break them down into separate SLOs.

Sample SLO statements could begin with the following:
• Nursing students will be able to evaluate...
• ESL (Level 2) students will be able to categorize...
• Chemistry 1 students will hypothesize...
• Political Science 3 students will be able to discuss...
• Nutrition and Food 10 students will be able to construct...
• Students meeting with Educational Advisors will be able to prepare...
• Faculty members attending a Professional and Organizational Development (POD) session on Blackboard Basics will be able to create...

How to write an ADMINISTRATIVE UNIT OBJECTIVE

In one sentence, describe what a client will experience, receive, or understand as a result of a given service. Make sure that the AUO represents a fundamental function of your department and aligns with your department goals and/or mission statement.

AUOs are central to a unit/office/department’s critical activities such as providing a service, improving a service or decreasing/increasing the likelihood of an event. What does the client experience through interaction with your unit? How do you know when your unit is both efficient and effective?

Some concepts to consider include the following:
- Level or volume of activity
- Efficiency (cost savings measures, turnaround time, improving a process)
- Compliance with external standards or regulations
- Client satisfaction
- Client outcomes

Sample objective statements could begin with the following:
- The students will experience...
- The campus will receive...
- The faculty will be satisfied with...
- The staff, student, and visitors will understand...

A set of guidelines has been developed to help you evaluate your AUO progress. The checklist is provided as Appendix D. It includes the following questions:
1. Does it align with department goals?
2. Does it state that the unit will provide, improve, increase, and decrease or that the clients will understand, be satisfied with, receive...?
3. Is it measurable (observable)?
4. Is it central to the unit/office/department?

Hints:
- Make sure the objective can be tested or assessed.
- Have a manageable number of objectives. Maybe a department could develop 2-4 objectives. Try to pare down the objectives to those that truly reflect the major skills or knowledge that clients will take away from the service(s) provided.
- When developing your objectives, keep in mind what kind of client behavior will help you determine if the expectations have been met.
- Define any terms that individuals outside of the service department would not be able to readily understand.
- A word of caution about assessing the 'feel' component. Attitudes may appear easy to assess but they require a lot of thought and specificity. Ask yourself if the attitude of the clients is necessary verifying the success of the service. Would it be acceptable if the client didn’t have the expected attitude but met the other expectations of the experience?
- When starting out, try not to get in over your head with the number or difficulty of the statements. Keep your statements simple and assess one thing at a time.

Step 3: Assessment Plan
Develop assessment plans for the SLOs/AUOs.

Once you have drafted your list of SLOs/AUOs, it is time to develop a plan to assess each of them. What will students/clients do in order to demonstrate that they have met your expectations? What kind of assessment tool could you use? Are there tools that already exist?

Write the plan in a manner that anyone would be able to follow through with it in case the original authors were no longer involved with the project. Think of it as a recipe for a cake that anyone can follow. There may be expected or unexpected changes in the individuals that work in a program or department and instead of starting the SLO or AUO process from the beginning, a clear assessment plan will serve as a blueprint for anyone to continue.

Your assessment plan should include the following:
- What means of assessment will you employ? Choices include course-embedded assessment, portfolio, survey, test, etc.
- How do you expect your students/clients to fare? Establish a minimum score for success and indicate the number (%, fraction, actual number) of students/clients who you expect to meet the minimum score
- Who will you assess? Consider the course(s), class sections, activity, workshop, term, etc.
- How will you collect your evidence?
- When will you collect your evidence?
- Who will be responsible for the administration of the assessment?
- Who will be responsible for the evaluation of the data collected?
• If you have conducted this assessment in the past, do you have any previous data to use as a marker for comparison?
• How would you plan to use the results?

Remember that you don't have to measure everything about every student during every course in every term or about every client for every service! Be selective and measure only those areas in which you are most interested and/or that are most relevant to meeting current or future student/client needs.

In order for the results to be useful, the assessment tools must possess both validity and reliability. Validity is the degree to which the assessment measures what it was intended to measure. Reliability is the consistency of an assessment.

The concepts of validity and reliability are demonstrated in the following example. If someone that weighs 175 pounds steps on a bathroom scale ten separate times, and it reads “175” each time, then the measurement is valid and reliable. If the scale consistently reads “225,” then it is not valid, but it is still reliable because the measurement is consistent. Reliability is a measure of consistency whereas validity is a measure of accuracy.

For more information regarding validity, reliability, or anything related to research and statistics, please contact the Research and Institutional Effectiveness Office.

Consider the following questions when developing your assessment plan:
• How will you know if and how well you have accomplished your objective?
  What can the student or client do to demonstrate that they have met the SLO or AUO?
• For SLOs:
  Do you have any existing assignments that will offer students an opportunity to address the expectation set in your SLO?
• For AUOs:
  Are there existing service performance checks that could be used to assess the objective statement?

Note: For SLOs, another way to develop outcomes is to look at what is already being done. This process is called course-embedded assessment, since the assessing or testing of outcomes is being incorporated into the course itself or may already exist.

Consider the use of multiple measures to assess an SLO or AUO. If you have a concept that is central to your course, program, or service, try to find more than one way to assess it. For example, if you expect your students to be able to possess a skill, think about several ways that they could provide evidence that they indeed possess the skill. Thus, students could self-report their skill on a survey, correctly answer the relevant questions on a final exam, and produce a project that requires them to use the skill. Using more than one way to assess an SLO or an AUO enables you to truly determine if your outcome or objective was met.
When you have developed your assessment plan, include it into your e-PIE form. Attach the relevant assessment tool (such as the survey, test questions, rubric, and focus group discussion items) directly to the e-PIE form. For practical assessment methods and tools, look at the Assessment Toolkit (Appendix A).

Also, the Research and Institutional Effectiveness Office is available to assist you and your department in developing an assessment plan that aims to measure your SLO. The Office has many resources that can ease the process and help you get started on the assessment.

**Examples: Assessment Plans**

Sample documented means of assessment and criteria for success for SLOs include the following:

- **Music:** 75% of students will perform all of the selected 6 (of the 12) major scales correctly in a maximum of two attempts. The scales will be evaluated by at least two full-time faculty using a checklist as a pass or fail. The performance will be assessed at the end of the spring and fall 2006 semesters in the normal performance evaluation process for the classes.

- **ESL:** By the end of fall 2006, 60% of Level 5 ESL students reporting orally will receive a passing score of 12 or higher (out of 18) on an ESL department oral rubric for Level 5 as measured by their classroom instructors.

- **Speech:** 70% of the students completing Speech 1A will have an average of 2 on a three-point scale rubric evaluating eye contact, organization, body control, and volume. The rubric will be used on speech delivery for a speech given in the last fourth of the semester in spring ’07. The speech will be judged by designated faculty and the data will be evaluated by the dept. SLO committee.

- **Fashion and Merchandising:** The Fashion and Merchandising department faculty will evaluate the design and fabrication projects during the 16th week of the fall and spring semesters. Successful students will receive a minimum score of 2 out of 3 in all 4 criteria of a design and fabrication rubric. Assessment will occur the 16th week of FASH 31. Students will be considered course completers after successfully passing FASH 10, 20, 21 or 22, and 31.

- **Fire Technology:** The Fire Technology Program at Mt. San Antonio College will administer and evaluate the standardized State Fire Marshall Firefighter I certification during the 15th week of the spring and fall semesters. Evaluations will be based upon standards set by The Office of the State Fire Marshall and The California Fire Service Training and Education System.

- **Air Conditioning and Refrigeration:** AIRC Program completers will report employment in the field of Air Conditioning and Refrigeration based on the AIRC Student Employment Survey. Of the AIRC program completers NOT employed in the HVAC&R when joining the program: 60% will report employment in the field of Air Conditioning or Refrigeration. AIRC program completers EMPLOYED when joining the program: 70% will report a pay increase. 80% will report new skills to improve their position in their existing company. 55% will report new skills to change jobs.
Sample documented means of assessment and criteria for success for AUOs include the following:

- **Information Technology**: System Availability and Uptime – the student information system will be available 99% of the time during normal business hours (7:30 – 4:30 Monday – Friday) as measured in academic year 2005-06 by the system administrators collecting system availability statistics. Evaluation will occur at the end of the academic year, June 30, 2006.

- **ESL**: Our current ESL Department records show that there is an estimated 76% rate of completion of all data sets per semester. Our goal is to improve the completion rate (# complete/all students) by 10% by the end of fall 06. Using this baseline analysis, a special report was created by the Special Projects Supervisor and run monthly to identify the data set completion status for every new student entering the ESL program.

- **Learning Assistance Center**: 75% of students will complete the entire survey on preferences for the Skills Lab environment. 70% of the student will mark 'a' on Question 1 to show the satisfaction with the current space. 40% will mark 'a' on Question 2 to show satisfaction with the conditions. The four question survey will be administered by the front counter personnel on the sixth week of spring 2007 semester as they check into lab. Skills Lab personnel will tabulate and average the responses.

**Step 4: Data Collection**

**Assess student learning or client experiences.**

This step sounds easy but is the one where most assessment efforts stall. Many departments are able to develop SLOs and AUOs and accompanying assessment plans but have difficulty administering the assessment and collecting the data. The first assessment cycle is usually the hardest to continue and complete because it competes with many other responsibilities and priorities. It may help to discuss this challenge and brainstorm possible maneuvers during the formation of the assessment plan.

Some helpful tips:

- Have SLOs/AUOs as a standing item on department meeting agendas.
- Block time in your schedule to complete the assessment plan.
- Designate an individual to be the Assessment agent who is responsible for reminding the department when important dates are approaching.

Surveys, focus groups, and performance exams are a few assessment methods. They produce very useful data, but require more endurance and team work than course-embedded assessment methods that capitalize on tools that already exist. For example, if the program or unit chooses to conduct a survey, they should consider the additional resources required to create the survey and collect the data. If a program chooses a performance exam, a rubric will have to be created to ensure that the evaluation is common across all course sections offered.

The Research and Institutional Effectiveness Office can assist with selecting the appropriate assessment tool, performing validity and reliability checks, preparing data...
interpretation and analysis, and explaining guidelines for norming rubrics. Although the RIE Office will not assist with the actual administration of the surveys or data collection, it can provide input in how to best administer the assessment tool. The data collection is housed within the program or department. Given the amount of time that the faculty and staff devote to their obligations, it is very reasonable to have surveys conducted by external contractors or to employ student workers to perform various administration duties. The latter method, however, requires supervision and training in order to be effective. When possible, consider course-embedded assessment using assignments or activities that already exist and submit the planned tools to the RIE Office for validity and reliability checks.

Step 5: Data Analysis
Aggregate and analyze the data.

After the assessment has been conducted, analyze and summarize the data. Refer to your assessment plan and examine the actual student performance or client behavior with what you had expected. How do they compare?

Some questions to consider when studying the data:
- What skills (or portions of skills) did student universally understand? What were most common errors that students made? What did the students not grasp at all?
- What parts of the service did clients express the greatest satisfaction? What were some of their recommendations?
- Are there other findings that exist that you did not expect? What are you most surprised by?
- Were there any trends, patterns or themes that emerged from the data?

Some guidelines to keep in mind after documenting the data:
- Does your summary of the data clearly address the means of assessment and criteria for success stated in the assessment plan?
- Have you reported the actual results for the expected level of success (include %, fraction, actual number, etc.)?
- Have you highlighted any key findings?

When you have prepared your summary of data, enter it into your e-PIE form. Attach any relevant documents such as spreadsheets or findings.

Examples: Data Analysis and Summary
- **Air Conditioning and Refrigeration:** This summary indicates the response of the program completers that were contacted through the AIRC Employment Survey. 52 students were contacted. Criterion (1) 16 students were not employed in the field when entering the program. At the time of the survey, 10 program completers, 63% reported employment in the HVAC field as a result of their educational experience. Criterion (2) 36 students were employed in the field when entering the program.
At the time of the survey:
23 or 64% had received a pay increase.
32 or 89% learned new skills to improve their position.
12 or 33% learned new skills to change jobs.
Key finding: Students that enter the program while employed in the industry are not receiving pay increases or transferring their employment at the levels expected by the department.

- **Welding:** From fall 2006 and spring 2007: These following scores reflect the percentage of students passing each subcategory of the practical exam.:
  Welder Selection  100%
  Welder Setup      90%
  Metal Preparation  100%
  Rod Selection     82%
  Speed of Travel   50%
  Rod Angle         50%
Students require additional instruction in learning rod selection, and the manipulative skills of rod angle and speed of travel to meet the department’s outcomes.

**Step 6: Closing the Loop**

**Determine ways to use the data and make applicable revisions to the curriculum, departmental processes, and the outcomes/objectives.**

Schedule and conduct another meeting with your faculty/staff to discuss the assessment results and the data summary. This step is the most vital since this is the time when you and your team can examine the findings, see areas for growth or opportunity, and brainstorm ideas and methods to address those areas. The purpose of this meeting is to stimulate meaningful dialogue and initiate change.

Guiding questions could include the following:
- Were you satisfied with the student performance or client response?
- Are changes or improvements necessary?
- Based on the data analysis and summary, how would you modify the teaching/service to better address the student/client needs?
- SLOs: What should be done to improve student learning? What elements of the teaching and learning process should be added, deleted or modified to increase student success?
- AUOs: What do you need to improve client experiences?
- Evaluate the assessment plan. What did you think of this SLO/AUO? Does it need to be revised? Does the criteria for success need to be changed?
- Should this outcome/objective be assessed again?

Once adequate discussion has taken place, determine the plan of action to make necessary revisions or changes. When documenting your use of results, consider the following:
- Does your plan for change align with the findings from the assessment effort?
- What does your unit/office/department plan to do as a result of the findings?
- Who will be responsible for making the change?
- When will the change take place?

**Examples: Closing the Loop**

- **Air Conditioning and Refrigeration**: As a result of the low scores in all of the subcategories, the department included six hours of ICE exam review in the CSL 34 class and 3 hours in ICE exam review in AIRC 25. Direct instruction on test-taking skills was added to CSL 10, 20, 25, 26A, and 34.
- **Welding**: As a result of the low scores in the two subcategories involving manipulative skills, the Welding department began a peer tutoring program to assist welders with their manipulative skills. As a result of the low scores in subcategory 4, direct instruction on welding rod selection has increased by 3 hours in both WELD 40 and WELD 51.

**Step 7: Documentation**

_Incorporate your SLO/AUO process into your electronic Planning for Institutional Effectiveness (Mt. SAC's program review)._ 

As you move throughout the assessment process, continue to document your assessment efforts into your electronic PIE (e-PIE) form. Develop some of your goals, needs, and resources based on the results of your assessment efforts and subsequent discussions. Remember to align your SLOs and AUOs to the related department goals, department mission and college goals, as applicable.

Trainings regarding e-PIE are being conducted on an ongoing basis through the Professional and Organizational Development (POD) Office. An e-PIE manual can be obtained through the Information Technology (IT) department. Any questions regarding the technical aspects of e-PIE can be directed to the Office of Information Technology and any questions regarding SLOs and AUOs can be directed to the Research and Institutional Effectiveness Office.

**Step 8: Continuous Cycle**

_Repeat the process continuously focusing on various SLOs/AUOs._

The process of self-reflection and assessment must remain a continuous process in order to bring about meaningful change. Assessment enables each department to evaluate its current and future goals and needs and plan strategies to serve its students and clients. Continuous improvement builds on existing efforts to improve student performance and optimize client experiences. Thus, it is imperative to continue dialogue and revise assessment efforts as necessary to ensure that student and client needs are being met.
## EXAMPLES OF NICHOLS’ 5-COLUMN MODEL

### EXAMPLE 1: MUSIC (SLO)

<table>
<thead>
<tr>
<th>Column 1: Mission/Goals</th>
<th>Column 2: Intended Outcomes/ Objectives</th>
<th>Column 3: Means of Assessment/ Criteria for Success</th>
<th>Column 4: Summary of Data</th>
<th>Column 5: Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>To provide quality transfer, career and lifelong programs that prepare students with the knowledge and skills needed for success in an interconnected world.</td>
<td>Music 16 students will be able to 1. perform technical exercises with competence 1.1 perform the 12 major scales on their instrument Music 16 returning students will be able to 1.2 perform the minor scales</td>
<td>1.1 75% of students will perform all of the selected 6 (of the 12) major scales correctly in a maximum of two attempts. 75% of returning students will perform all of the selected major and minor scales in a maximum of two attempts. The scales will be evaluated by at least two full-time faculty using a checklist as a pass or fail. The performance will be assessed at the end of the Fall 2006 semesters in the normal performance evaluation process for the classes.</td>
<td>1.1 We had 27 new students play 6 major scales (D, B, F, C, G, D) and here are the results: 13 students played all 6 scales correctly, 4% of students played 5 scales correctly, 19% of students played 4 scales correctly, 15% of students played 3 scales correctly, 15% of students played 2 scales correctly, 1 student missed his jury, 3%</td>
<td>(Possible directions for the use of these results: 1. It was suggested that we use the harmonic or melodic form instead of the natural minor scale 2. The department proposed adding rhythmic exercises to juries, which would also include vocal students 3. We also discussed creating a new music major book containing info on scale requirements, rhythmic exercises, and required courses)</td>
</tr>
</tbody>
</table>

1.2 75% of returning students will perform all of the selected minor scales in a maximum of two attempts. The scales will be evaluated by at least two full-time faculty using a checklist as a pass or fail. The performance will be assessed at the end of the Fall 2006 semesters in the normal performance evaluation process for the classes.

1.2 Four of our new SLO we had 25 returning students play their 6 minor scales (c, g, d, a, e, b) and here are the results: 15 students played 6 scales correctly. 65% of students played 5 scales correctly, 13% of students played 4 scales correctly, 4% of students played 3 scales correctly, 9% of students played 2 scales correctly, 4% of students played 1 scale correctly, 4% of students played 0 scales correctly. | 4% Key Findings: All students were below the expected level of 75% Returning students fared better than new Members. There are still inconsistencies in getting clear details to students and instructors. This process is helpful in preparing future majors for experiences that they would be having at a four-year institution. |
## EXAMPLE 2: PURCHASING (AUO)

<table>
<thead>
<tr>
<th><strong>Column 1: Mission/Goals</strong></th>
<th><strong>Column 2: Intended Outcomes/ Objectives</strong></th>
<th><strong>Column 3: Means of Assessment/ Criteria for Success</strong></th>
<th><strong>Column 4: Summary of Data</strong></th>
<th><strong>Column 5: Use of Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department Mission:</strong> It is the mission of Mt. San Antonio College's Purchasing Department to provide quality information, goods and services in a fiscally responsible, courteous, and efficient manner to support the educational and institutional goals of the College.</td>
<td>Conduct a customer satisfaction survey, created by Purchasing and administered by Office of Research &amp; Institutional Effectiveness in Fall 2006. Success is defined as an 80% response rate of agree or strongly agree on all survey questions.</td>
<td>Survey conducted Sept. 2006 Who Responded: 163; 62% of which interface daily or weekly; 61% classified, 26% faculty, 13% managers Survey tool was flawed; 10-13% marked 'No Opinion' which did not indicate satisfaction or not with measured criteria. Promptness: 84.1% agree (+) and 2.5% disagree (-) Accuracy: 82.8% (+) and 1.8% (-) Attitude: 87.7% (+) and 9% (-) Overall Satisfaction: 90% (+); 1.4% (-) Of the 23 comments received, the following were requests for: 3 – faster service 3 – single mail service point 3 – more information about the process</td>
<td>Even with a flawed survey tool, MAIL SERVICES exceeded the 80% success rate for every measured criterion. Refine survey so next time all results can be measured. Response to comments: MAIL SERVICES received their best scores for their positive attitude and the overall satisfaction they provide, which was reflected in the positive comments. Since the survey was performed, one (1) Mail Room Operator has been changed from part- to full-time – the 20 additional hours increases the stable workforce – which should improve service time. The structure of MAIL SERVICES (main processing area and faculty mail boxes in the Administration Building, and departmental mail delivered/picked-up at each office on campus) is dependent, in part, on division and building changes in next 2-3 years since there is currently not enough space to do everything in one location. Information is being developed for departmental intranet site.</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSION

SLOs and AUOs are two of the primary assessment efforts currently taking place at Mt. SAC. This guidebook has attempted to introduce the fundamentals of these efforts in order to enable you to develop and assess them. If these efforts evolve into new initiatives, remember that the essence of assessment remains the same: self-reflection, evaluation, and change. Our focus as an institution is on the success of our students through their instructional and non-instructional experiences. You are all assessing on an ongoing basis and hopefully, this guidebook has demonstrated various ways to articulate, document, and share the efforts taking place across the campus!
REFERENCES


Kinds of Concept Maps. University of Illinois at Urbana-Champaign. http://classes.aces.uiuc.edu/ACES100/Mind/e-m2.html


RESOURCES AT MT. SAC

The following individuals can provide assistance with the development and assessment of SLOs and AUOs.

Joan Sholars
SLO Faculty Coordinator
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Priyadarshini Chaplot
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Jennifer Tucker (after November 1, 2008)
Educational Research Assessment Analyst
Research and Institutional Effectiveness
jtucker@mtsac.edu ext. 4708

The following websites may also serve as resources:

SLOs and AUOs at Mt. SAC: http://www.mtsac.edu/instruction/outcomes/
(to be updated in 2008-09 academic year)

Student Learning Outcomes Committee:
http://inside.mtsac.edu/organization/committees/slo/index.html

Institutional Effectiveness Committee:
http://inside.mtsac.edu/organization/committees/iec/

e-PIE:
http://tracdat.mtsac.edu/tracdat/
(training required in order to log in, contact Kate Scott)
# APPENDIX A: ASSESSMENT TOOL BOX

## TOOLBOX

![Toolbox Image]

### METHOD OF ASSESSMENT

<table>
<thead>
<tr>
<th></th>
<th>Assessment Type</th>
<th>Data Type</th>
<th>Assessment Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Muddiest Point</td>
<td>Formative</td>
<td>Classroom</td>
</tr>
<tr>
<td>2</td>
<td>Directed Paraphrase</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>3</td>
<td>Minute Paper</td>
<td>Formative</td>
<td>Division</td>
</tr>
<tr>
<td>4</td>
<td>Characteristic Features</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>5</td>
<td>Recall, Summarize, Question, Comment, Connect</td>
<td>Formative</td>
<td>Classroom</td>
</tr>
<tr>
<td>6</td>
<td>Transfer and Apply</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>7</td>
<td>Anecdotal Records</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>8</td>
<td>ConcepTests</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>9</td>
<td>Concept Mapping</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>10</td>
<td>Quizzes or Exams</td>
<td>Formative</td>
<td>Project</td>
</tr>
<tr>
<td>11</td>
<td>Rubrics</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>12</td>
<td>Essay</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>13</td>
<td>Case Studies</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>14</td>
<td>Problem Solving</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>15</td>
<td>Speech</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>16</td>
<td>Oral Interview</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>17</td>
<td>Debate</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>18</td>
<td>Product Creation</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>19</td>
<td>Flowchart or Diagram</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>20</td>
<td>Team Project</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>21</td>
<td>Portfolios</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>22</td>
<td>Performance</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>23</td>
<td>Capstone Project</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>24</td>
<td>Reflective Self-Assessment Essay</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>25</td>
<td>Satisfaction or Perception Surveys</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>26</td>
<td>Licensing Exams</td>
<td>Summative</td>
<td>Project</td>
</tr>
<tr>
<td>27</td>
<td>Standardized Tests</td>
<td>Summative</td>
<td>Classroom</td>
</tr>
<tr>
<td>28</td>
<td>Exit Interviews</td>
<td>Summative</td>
<td>Program</td>
</tr>
<tr>
<td>29</td>
<td>Focus Groups</td>
<td>Summative</td>
<td>Division</td>
</tr>
<tr>
<td>30</td>
<td>Pre / Post Testing</td>
<td>Summative</td>
<td>Project</td>
</tr>
</tbody>
</table>
ASSESSMENT TOOL BOX

Introduction

This toolbox is designed to provide examples of assessment methods that can be used as course-embedded assessment. Each assessment method is briefly described and includes the suggested advantages and disadvantages along with references to review for more information. This list is not meant to be inclusive of all ways to measure student learning outcomes. If you are unsure of which method to use to measure your SLO or AUO, contact the Research and Institutional Effectiveness Office for assistance.

Key Definitions:

Source: James Madison University Dictionary of Student Outcome Assessment

Evaluation: This term broadly covers all potential investigations, with formative or summative conclusions, about institutional functioning. It may include assessment of learning, but it might also include non-learning centered investigations (e.g., satisfaction with recreational facilities).
http://people.jmu.edu/yangsx/Search.asp?searchText=evaluation&submit=Search&Option=Term

Assessment: The systematic process of determining educational objectives, gathering, using, and analyzing information about student learning outcomes to make decisions about programs, individual student progress, or accountability
http://people.jmu.edu/yangsx/Search.asp?searchText=assessment&submit=Search&Option=Term

Additional information on The Assessment Process can be found at:

Formative assessment: An assessment which is used for improvement (individual or program level) rather than for making final decisions or for accountability
http://people.jmu.edu/yangsx/Search.asp?searchText=formative&submit=Search&Option=Term

Summative assessment: A sum total or final product measure of achievement at the end of an instructional unit or course of study
http://people.jmu.edu/yangsx/Search.asp?searchText=summative&submit=Search&Option=Term

Direct: Direct measures of student learning require student to display their knowledge and skills as they respond to the instrument itself. Objective tests, essays, presentations, and classroom assignments all meet this criterion.
http://people.jmu.edu/yangsx/Search.asp?searchText=direct&submit=Search&Option=Both

Indirect: Indirect methods such as surveys and interviews ask students to reflect on their learning rather than to demonstrate it.
http://people.jmu.edu/yangsx/Search.asp?searchText=indirect&submit=Search&Option=Term
Methods of Assessment

1. Muddiest Point

Based on the premise that most lectures can be improved, this method is to ask students to write down the concepts that were least clear to them. Those least understood concepts that total a pre-determined threshold would be addressed by the professor in future lectures or by an additional handout clarifying the subject-matter.

Advantages: Requires students to organize and filter their understanding of several topics to select one that was least understood. It requires minimal time to read the results.

Disadvantages: This method should be used only occasionally as it focuses on a negative aspect of learning rather than a positive one.


2. Directed Paraphrase

This method promotes simulation of actual work or life-related experiences. Students are asked to summarize the key concepts from a class or lecture and formulate a written discussion of those concepts to an imagined, specific recipient. The differentiation between this method and a simple summarization is use of role play by the students.

Examples:
1. A nursing student might be directed to paraphrase the concept of drug clearance by the kidneys to a worried patient.
2. An economics student might be directed to paraphrase a point of tax policy to a corporate CEO.
3. A philosophy student might be directed to paraphrase an ethics concept so that it is readily understood by a teenager.

Advantages: Students are challenged in brevity and choice of language when writing the paraphrase. Students become well-prepared for similar situations in the work environment.

Disadvantages: Some students may see this method as informal. This can be avoided by detailed phrasing of the initial question.

http://www.siue.edu/~cder/assess/cats/paraphrase.html
3. Minute Paper

Students are asked to spend about a minute to write down the main idea of a topic or class. The Minute Paper is commonly used to determine if the main idea of the instructor's lecture is captured by the students. An instructor may request the inclusion of a question students may have on the subject matter, or, ask students to comment on interesting, disturbing, or surprising aspects of a lecture or class.

Advantages: Minute Papers offer immediate feedback and, possibly, positive reinforcement to the professor. There is creative variability in the use of Minute Papers. Students must use organizational skills to chunk the information and rank the concepts. If questions are used, the assessment becomes integrative. Use of Minute Papers requires minimal time.

Disadvantages: May be time-consuming to review for large classes. Forming teams to answer question(s) may alleviate this issue.


http://www.siue.edu/~deder/assess/cats/minpap4.html

4. Characteristic Features

Characteristic Features is an assessment technique that requires students to differentiate between characteristics that do or do not define one or more topics. Using a grid structure, the instructor lists several characteristics in the left-hand column. In the columns to the right, the instructor gives topic headers, and the students are to enter a plus, “+” or minus, “-” sign to designate whether the characteristic in the left-hand column is or is not applicable to the topic header.

Example:

<table>
<thead>
<tr>
<th>Characteristic Feature</th>
<th>Grades</th>
<th>Classroom Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. More closely focused on improving learning and teaching rather than on recording results</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>2. Used primarily at the end of a course or project</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>3. Source material is usually collected anonymously</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>4. Mostly quantitative and suitable for statistical analysis</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>5. Directly mirrors student understanding of course</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Material</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>6. Emphasizes judgmental process and summative evaluation</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>7. Results designed for official and external use</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>8. Use of standardized and externally validated instruments preferred</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9. Requires training in research methods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10. Results useful to professors and students</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: Southern Illinois University, Classroom Assessment

Advantages: Characteristic Features measure students' use of analysis to identify central concepts. Scanning results is simple and can be done quickly.

Disadvantages: Grid creation may be time-consuming. Students may score highly due to random selection rather than content knowledge.

http://www.siue.edu/~ceder/assess/cats/feats6.html

5. RSQC2 - Recall, Summarize, Question, Comment, and Connect

Students take two minutes to recall and list in rank order the most important ideas from a previous day's class. Then they take another two minutes to summarize those points in a single sentence in order to "chunk" the information. Next, students are asked to write one major question that they want answered. Finally, students identify a thread or theme to connect this material to the course's major goal. As an option, students may add a comment regarding their confidence in or wariness of the specific course content.

Advantages: RSQC2 requires students to organize information and to comprehensively assess how it applies to the overall foundation of the course.

Disadvantages: RSQC2 is time-consuming to evaluate. It also forces the professor to evaluate the course structure.


6. Transfer and Apply

Students are asked to take course theories learned and to transfer the knowledge to applications and situations they have experienced.

Advantages: Because transference of learned material is a challenging cognitive achievement, Transfer and Apply provides students practice in mastering the task. Evaluating the results may be done rather quickly.

Disadvantages: Creating rubric to assess Transfer and Apply may be time-consuming. (see section on Rubrics)


http://www.siue.edu/~deder/assess/cats/appso.html

7. Anecdotal Records

Anecdotal Records are written observations of instructional experiences within a pre-defined set of content standards.

Advantages: Anecdotal records facilitate review of assessment and curriculum by providing observations of student learning.

Disadvantages: This method requires planning, preparation and may be time-consuming during class time.


8. ConceptTests

Conceptests are a technique used where the instructor asks questions about key concepts and offers students several possible answers. Students are asked to select an answer and to indicate immediately, either by show of hands or by clicker, the answer selected. If the majority of the class has not mastered the concept, students are then asked to discuss with their neighbor the reasons supporting their choice. A second assessment is given by the instructor to re-assess knowledge.

Example:

Advantages: This classroom assessment works well in large classes. Students require little training for Conceptests. It takes minimal class time to perform the tests and to analyze results.
Disadvantages: Formulating the questions and possible answers for the Concept tests can take time initially. There is a cost involved in the clicker system.


9. Concept Maps

Concept Maps are a visual tool allowing students to see the relationships between general and specific concepts. Concepts are given in a hierarchical design, with links between defining the nature of the relationships.

Example:

![Concept Maps Diagram]

Source: http://www.flaguide.org/cat/conmap/conmap2.php

Advantages: Effective for assessing students’ understanding of complex relationships.

Disadvantages: Instructor prep time can be significant for creating fill-in Concept Maps.

See also: Flowcharts or Diagrams

http://www.flaguide.org/cat/conmap/conmap1.php

http://classes.aces.uiuc.edu/ACRS100/Mind/c-m2.html
10. Quizzes or Exams

These are locally developed instruments designed by faculty to measure knowledge in single or multiple components of a course.

Advantages: The content is easily modified to adapt to specific outcomes. Results are meaningful for both student evaluation and learning outcomes. Embedding Learning Outcomes into the quiz or exam is uncomplicated. Feedback may be rapid.

Disadvantages: Creating quizzes or exams may be time-consuming. Determining reliability and validity require extensive knowledge in measurement.


11. Rubrics

A rubric is a scale designed for scoring student work against a pre-defined set of criteria. A rubric is typically in table format with two or more criteria and two or more levels of performance to be measured.

Analytical rubrics specify individual criteria and evaluate these standards independent of one another.

Holistic rubrics measure performance across multiple factors as a complete product.

Advantages: Assessment is objective and consistent. Rubrics clearly document and communicate expectations.

Disadvantages: Using rubrics may be limiting to student creativity as students strive to follow a predefined outline. Rubrics are time-consuming to create.

http://jonathansu/muellerfaculty.necr.edu/toolbox/rubrics.htm

http://www.ion.illinois.edu/resources/poistersclickers/2004_03/benefits.asp

12. Essays

Essays are a written evaluation of a topic utilized to demonstrate a student’s ability to plan, research, analyze, organize and synthesize information. Students develop stronger communication skills through essay writing.

Advantages: Effective for assessing students' understanding of multiple concepts.

Disadvantages: Grading is time-consuming.

13. Case Studies

Case studies are actual issues and problems that students analyze to formulate alternative solutions for the situations.

Numerous case studies in various disciplines have been developed by academic institutions and are available for purchase and use by other schools.

Advantages: Case studies demonstrate analytical and synthetic thinking well. Also, students benefit from relating other knowledge to topic.

Disadvantages: The learning experience is dependent on student knowledge from multiple areas.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8Toolslinks.htm#Case%20Study

14. Problem Solving

Problem Solving uses the same approach as Case Studies, but may leave more developmental problem solving to the student. For instance, the student must develop the experiment or tests to obtain data.

Advantages: This technique displays analytic and synthetic thinking well and is authentic if real world situations are used.

Disadvantages: Problem solving assessment is difficult to grade due to multiple methods and potential multiple solutions.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8Toolslinks.htm#Case%20Study

http://www.ruf.rice.edu/~jane/rvls.html

15. Speech

Oral speech is a method used to emphasize a student’s organizational and verbal communication skills. Students may be required to analyze an issue or situation and verbally present the findings or students may be asked to memorize passages to recite verbatim.

Advantages: Students improve skills in public speaking and organization.

Disadvantages: Some students may be insecure about public speaking.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8b.htm
16. Oral Interview

An oral interview provides a portrait of a student's understanding about a specific concept or set of related concepts. The interview may consist of a question and answer session or a task or problem-solving exercise.

Advantages: Appropriate for all disciplines.

Disadvantages: Several hours may be required to develop a reliable questions or problem sets. Interviews are best used when the student has developed a comfortable relationship with the professor.

http://www.colorado.edu/pba/outcomes/ovview/within.htm

17. Debate

A debate is an oral speech contest between competing sides about a specific topic or proposition. Debates increase student abilities in knowledge, speaking skills, reasoning skills and analysis.

Advantages: Students are required to organize thoughts and formulate clear and concise arguments in a short period of time. Depending upon the number of students involved, the debate process may emphasize teamwork.

Disadvantages: Students from collective cultures may be uncomfortable with public displays of disagreement.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8b.htm


18. Product Creation

Product creation requires the student to construct a tangible product. Students exhibit knowledge and practical skills required for the processes and outputs.

Advantages: Students have the opportunity to demonstrate employability.

Disadvantages: Colleges may be limited in resources available for product creation.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8b.htm
19. Flowchart or Diagram

A flowchart is a visual or graphical representation, primarily through the use of symbols, of the logic or sequence of steps in a process, operation, function, or activity. Students must recall information and also analyze and synthesize organization and structure to develop systematic steps within the process.

Example:

![Flowchart Example](https://www.example.com/flowchart-example.png)

Source: [http://www.example.com/flowchart-examples.php](http://www.example.com/flowchart-examples.php)

Advantages: Effective for assessing student understanding of complex relationships.

Disadvantages: Instructor preparation may be time consuming to create complex outline of flowcharts.

See also: Concept Map

[http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_tToolsli- rks.htm#CaseStudy](http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_tToolslinks.htm#CaseStudy)
20. **Team Project**

Team projects are collaborative projects produced to cover concepts in one course, multiple courses, such as learning communities, or community projects, such as service learning.

Advantages: Appropriate for assessing students’ knowledge of multiple concepts, as well as multiple levels of understanding and application.

Disadvantages: May be difficult to assess individual student involvement. Additional time may be required due to collaboration with faculty from other disciplines.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4 Geschäftsli nks.htm#Case%e0Study

http://www.cpcs.umb.edu/partners_projects/partners_projects_collaborations.htm

21. **Portfolios**

Portfolios are collections of students work that demonstrate the progress and level of learning that occurs over a period of time. The variety of work maintained in the portfolio illustrates multiple levels of learning.

Advantages: Analyzing a portfolio of work allows the faculty to assess a broad spectrum of knowledge at one time. Also, it allows for assessment of several learning objectives simultaneously. Portfolios are useful for a number of disciplines. Portfolios are easily adaptable to measuring different levels of assessment (e.g. course, program, general education).

Disadvantages: May be labor-intensive to assess at the end of a term or program. Depending upon the course or program, portfolios may require physical storage space for hard copies.

http://www.provost.wisc.edu/assessment/manual/manual2.html#a4

22. **Performances**

A performance is an execution of an action or artistic work. Performances emphasize what the student is able to do. Students receive valuable practical experience through active learning.

Advantages: Performances are adaptable. They promote student self-assessment. Students have the opportunity to demonstrate employability.
Disadvantages: Preparation and assessment for performances can be time-consuming. Students who are insecure may be dissuaded from participation. Depending upon the discipline assessed, this method may require extensive training of reviewers.


23. Capstone Project

A Capstone project measures student achievement of a broad knowledge base derived from participation in a program or a specific series of courses.

Advantages: Capstone projects are cumulative and integrative. Assessment of projects provides a setting for department or discipline-specific dialogue.

Disadvantages: Capstone projects can be labor-intensive. Coordination across the departments or disciplines may be challenging.

http://www.colorado.edu/pba/outcomes/oyview/mwithin.htm

24. Reflective Self-Assessment Essay

Students are asked to reflect on their college experiences. They must critically assess their academic growth and development in essay form, providing substantiation for their positions. When used in combination with Student Portfolios, students can observe development and document progress thoroughly.

Advantages: Student perspective is authentic.

Disadvantages: Reflective Self-Assessment is an indirect method of assessment.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8Toolslinks.htm#Case%20Study

25. Satisfaction or Perception Surveys

Student satisfaction or perception surveys are used to gather data about student priorities and satisfaction. Surveys can be locally created or commercially standardized. Some standardized surveys allow for partial customization to allow the department or school to collect specialized data.

Examples: CCSSE and NSSE on student engagement, Noel-Levitiz SSI (Student Satisfaction Inventory), CSEQ College Student Experiences Questionnaire

Advantages: For commercially developed surveys, scores are immediate and data are compared to student populations nationwide.
Disadvantages: Usually the college-wide instruments such as CCSSE are administered not for class-level feedback, but for college-level feedback; therefore, it is hard to use these surveys for class-based review of your own students. It is time consuming to generate questions for locally developed surveys.

See also: Exit Interview

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8Toolslinks.htm#Case%20Study

http://www.mtsac.edu/administration/research/pdf/tips/ResearchTips%20v1%20designing%20surveys.pdf

26. Licensing Exams

Many vocational careers require students to pass licensing exams to enter a specific field of work. Sample licensing exams are available for many professional licenses.

Advantages: Students see probable outcome of their preparation. Sample scores are useful for assessing areas of student strength and weakness, in order to modify and improve instruction.

Disadvantages: Low scores on sample exams may disillusion students.

http://online.bakersfieldcollege.edu/courseassessment/Section_4_Assessment_Tools/Section4_8Toolslinks.htm#licensing%20Exams

27. Standardized Tests

Standardized tests are assessments created and tested under controlled conditions to determine the level of learning acquired. Student competencies are measured and compared to national standards.

Advantages: Benefits include broad public usage and ease of data comparison. Results demonstrate external validity. Recent high-school graduates may have familiarity with the format of standardized tests.

Disadvantages: Unlike locally-developed quizzes or exams, standardized tests do not offer the flexibility of customization to various goals or outcomes. Faculty may be unable to clearly determine where student succeed and fail.

28. Exit Interviews

Exit Interviews ask students to reflect upon student learning and their educational experiences. Students are asked about instructional approaches, classroom environments and perceptions of assignments that best encourage student learning.

Advantages: Provides authentic and immediate feedback useful for assessing program improvement. Interaction with students may provide richer data collection. Interviews allow for clarification and depth of inquiry.

Disadvantages: Best if used in conjunction with other assessment tools.

See also: Satisfaction or Perception Surveys

http://www.skidmore.edu/administration/assessment/hbmethods.htm#indirect

29. Focus Groups

Focus groups are interactive discussions among a small pool of participants. Students are asked about attitudes towards their educational experience.

Advantages: Focus groups allow for in-depth inquiry, clarification, and follow-up on issues. Useful when combined with quantitative analysis for a broad understanding of issues.

Disadvantages: Data is indirect. Assembling groups of students may be challenging due to scheduling differences. Focus group data may be biased. Focus group moderator must be properly trained to address the group. Requires additional personnel to record and/or transcribe responses.

http://www.mtsac.edu/administration/research/pdf/tips/ResearchTips%20v1n3%20focus%20groups.pdf

30. Pre-Post Assignment/Test

At the onset of a course, an assignment or test is administered to measure the baseline level of understanding of one or more concepts. After learning occurs, a similar assignment or test is given to determine the level of learning.

Advantages: Pre-test results offers direction for group learning. Provides immediate feedback, if desired.

Disadvantages: Possible tendency to teach to the post test or assignment.

http://www.pvc.maricopa.edu/AI/documents/PrePost.doc
APPENDIX B: 5-COLUMN MODEL

Mt. San Antonio College
Discipline/Department: ___________________________  Date: ___________________
Recorded by SLO Coordinator: ___________________________

**Student Learning Outcomes (SLOs)** Assessment Model: The purpose of this assessment process is to improve student learning outcomes.

College Mission: The mission of Mt. San Antonio College is to welcome all students and to support them in achieving their personal, educational, and career goals in an environment of academic success.

<table>
<thead>
<tr>
<th>Mission &amp; Goals</th>
<th>Intended Outcome(s)</th>
<th>Means of Assessment and Criteria for Success</th>
<th>Summary of Data Collected</th>
<th>Use of Results</th>
</tr>
</thead>
</table>
# APPENDIX C: SLO CHECKLIST

<table>
<thead>
<tr>
<th>5-COLUMN MODEL</th>
<th>e-PIE</th>
<th>CRITERIA</th>
<th>Does Not Meet Criteria</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   MISSION AND GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2   INTENDED OUTCOME(S)</td>
<td>PLAN tab: SLO/AUO/SA Related Goals</td>
<td>□ the outcome is tied to the college mission and the unit/program goal, if applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3   MEANS OF ASSESSMENT/CRITERIA FOR SUCCESS</td>
<td>PLAN tab: Means of Assessment Assessment Method Criterion Schedule</td>
<td>□ indicates course- or program-level assessment&lt;br&gt;□ aligns with department goals&lt;br&gt;□ is reasonable given the ability of the students&lt;br&gt;□ states what students will know, do, think, or feel&lt;br&gt;□ is measurable (can be observed or tested)&lt;br&gt;□ is central to the course/program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4   SUMMARY OF DATA</td>
<td>SUMMARY OF DATA tab</td>
<td>□ Means of Assessment:&lt;br&gt;identifies specific assessment method category (course embedded assessment, test, portfolio, standardized test, survey, etc.) for the outcome&lt;br&gt;details the assessment method used to measure the outcome&lt;br&gt;criteria for Success:&lt;br&gt;establishes minimum expected score for success at achieving outcome&lt;br&gt;quantifies (%, fraction, or actual number) of students who are expected to meet minimum score&lt;br&gt;indicates consideration of alternate data (previous SLO assessment effort(s), external reports), if available (optional)&lt;br&gt;establishes the minimum score for any sub-categories within the outcome, if applicable Schedule:&lt;br&gt;specifies the time frame in which outcome will be assessed&lt;br&gt;specifies who will administer the assessment Evaluation:&lt;br&gt;identifies evaluator(s)&lt;br&gt;specifies evaluation process&lt;br&gt;attach relevant document(s), if applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5   USE OF RESULTS</td>
<td>SUMMARY OF DATA tab: Use of Results</td>
<td>□ addresses the means of assessment and criteria for success statement in the Means of Assessment/Criteria for Success section above&lt;br&gt;reports the actual results and compare with the number (%, fraction, actual number) originally expected to meet the minimum score&lt;br/includes additional data for sub-category (include comparisons with any minimum sub-scores)&lt;br/highlights key findings from the data, if applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

50
## APPENDIX D: AUO CHECKLIST

<table>
<thead>
<tr>
<th>5-COLUMN MODEL</th>
<th>e-PIE</th>
<th>CRITERIA</th>
<th>Does Not Meet Criteria</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MISSION AND GOALS</td>
<td></td>
<td>the objective is tied to the college mission and the unit/program goal, if applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2 INTENDED OBJECTIVE(S) | PLAN tab: SLO/AUO/SA Related Goals | □ is current  
□ aligns with department goals  
□ is reasonable given the scope of the experience  
□ states that the unit will provide, improve, decrease or that the clients will understand, be satisfied with, receive  
□ is measurable (can be observed or tested)  
□ is central to the department |                        |                |
| 3 MEANS OF ASSESSMENT/CRITERIA FOR SUCCESS | PLAN tab: Means of Assessment/Success Method Criteria Schedule | **Means of Assessment:**  
□ identifies specific assessment method category (focus group, survey, etc.) for the objective  
□ details the assessment method used to measure the objective  
**Criteria for Success:**  
□ establishes minimum expected score for success at achieving objective  
□ quantifies (% or fraction or actual number) of clients who are expected to meet minimum score  
□ indicates consideration of alternate data (previous AUO assessment effort(s), external reports), if available (optional)  
□ establishes the minimum score for any subcategory within the objective, if applicable  
□ specifies the time frame in which objective will be assessed  
□ specifies who will administer the assessment  
**Evaluation:**  
□ identifies evaluator(s)  
□ specifies evaluation process  
□ attaches relevant document(s), if applicable |                        |                |
| 4 SUMMARY OF DATA    | SUMMARY OF DATA tab | □ addresses the means of assessment and criteria for success statement in the Means of Assessment/Success section above  
□ reports the actual results and compare with the number (% or fraction, actual number) originally expected to meet the minimum score  
□ includes additional data for subcategory (include comparisons with any minimum sub-scores)  
□ highlights key findings from the data, if applicable |                        |                |
| 5 USE OF RESULTS     | SUMMARY OF DATA tab: Use of Results | □ aligns with the summary of data in the Summary of Data section above  
□ uses present-continuous or past tense  
□ reports what the department/unit members have done or are doing as a result of the findings  
□ identifies who has made or is making the changes  
□ indicates the time frame for the changes |                        |                |
APPENDIX B

Style Sheet of Local Course Review Practices
# Style Sheet of Local Course Review Practices

**Course Outline of Record (COR)**

9 June 2011

<table>
<thead>
<tr>
<th>Course ID</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Course Element</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose and Function of Style Sheet</td>
<td>The following guidelines highlight capitalization, punctuation, format, and writing styles recommended for Mt. SAC Course Outlines of Record. Consistent use of the guidelines should assist in the writing and evaluation of CORs. The guidelines highlight local practice and complement, but do not replace, the officially adopted references, <em>The Course Outline of Record: A Curriculum Reference Guide (2008)</em> by the Academic Senate for California Colleges Curriculum Committee and the <em>Program and Course Approval Handbook</em> (2009) by the Chancellor’s Office.</td>
</tr>
<tr>
<td>Integration Statement</td>
<td>A course outline of record needs to be integrated. At the most fundamental level, “integration” occurs when each element of the course outline of record reinforces the purpose of the other elements in the course outline. There should be an obvious relationship between the objectives of the course, the methods of instruction, assignments, and methods of evaluation used to promote and evaluate student mastery of those objectives.</td>
</tr>
<tr>
<td>Capitalization</td>
<td>Use consistent capitalization</td>
</tr>
<tr>
<td></td>
<td>Capitalize only proper nouns</td>
</tr>
<tr>
<td>Punctuation</td>
<td>Avoid using the slash (/) as it does not clearly express intended meaning</td>
</tr>
<tr>
<td></td>
<td>Avoid using the ampersand (&amp;) unless part of a proper noun</td>
</tr>
<tr>
<td>Format and Writing Style</td>
<td>Abbreviations and acronyms are spelled out the first time the term is used and place the abbreviation in parenthesis immediately after. The abbreviation can be used thereafter.</td>
</tr>
<tr>
<td></td>
<td><strong>Examples:</strong></td>
</tr>
<tr>
<td></td>
<td>Educational Degree Committee (EDC)</td>
</tr>
<tr>
<td></td>
<td>Curriculum and Instruction Council (CIC)</td>
</tr>
<tr>
<td></td>
<td>Course Outline of Record (COR)</td>
</tr>
<tr>
<td>General Considerations</td>
<td>Use parallelism</td>
</tr>
<tr>
<td></td>
<td><strong>Examples:</strong></td>
</tr>
<tr>
<td></td>
<td>listing, formatting, and visualization</td>
</tr>
<tr>
<td></td>
<td>e-learning, blended, and virtual</td>
</tr>
<tr>
<td></td>
<td>opening, applying, converting</td>
</tr>
<tr>
<td></td>
<td>obtaining, analyzing, current</td>
</tr>
<tr>
<td></td>
<td>sharing, citing, and distributing</td>
</tr>
<tr>
<td></td>
<td>drop, busy, and determine</td>
</tr>
</tbody>
</table>

In many cases the word “the” may be omitted unless grammatically necessary

**Examples:**

- the risk of migration in disease progression
- the classic French school
- the statement about the types of digital photography

---

# Style Sheet of Local Course Review Practices

**Course Outline of Record (COR)**

9 June 2011

<table>
<thead>
<tr>
<th>Course ID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Element</th>
<th>Guidelines</th>
</tr>
</thead>
</table>
| **Catalog Description** | Format and Writing Style  
Omit introductory words and start with primary topic when appropriate  
Examples:  
- Control network’s vulnerabilities from a hacker’s perspective  
- Two-approach-techniques for successful HVAC control theory as it applies to electric, pneumatic, and digital control systems  
- Control network’s vulnerabilities from a hacker’s perspective in a building community and the development of domestic art. |

| **Schedule Description** |  
Format and Writing Style  
Do not introduce topics not mentioned in catalog description  
First sentence of catalog description is good choice  
Limited to 130 characters  
Include course requirements  
Examples:  
- Field trip is required  
- Text is required  
- Concurrent enrollment in a building community is required. |

| **Lecture Topical Outline** | Capitalization  
Use sentence capitalization  
Punctuation  
Begin each topic with a dash  
Examples:  
- History of control systems  
- Use of value and value in space informed by light logic  
- Milky Way and other galaxies  
No punctuation at end of topic  
Format and Writing Style  
Omit references to the following as they are not topical  
- Syllabus  
- Course orientation  
- Introduction or introduction to  
- Review of  
- Introduction and overview  
- Fundamentals  
- List topics only once  
- List distinct topics on separate lines  
- Omit midterm  
- Include Final exam  
- Omit teaching activities  
Format and Writing Style  
Topics should indicate instructional activity |

| **Lab Topical Outline** |
| (Refer to Topical Outline) |
| (Exceptions are listed) |
# Style Sheet of Local Course Review Practices

**Course Outline of Record (COR)**  
9 June 2011

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Element</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The use of gerunds, if appropriate, convey activity</td>
<td>Examples:</td>
</tr>
<tr>
<td></td>
<td>- Adjusting measuring devices</td>
<td>- Assembling, editing, and rendering presentation slides for final output or animated story</td>
</tr>
<tr>
<td></td>
<td>- Acquiring digital images with digital cameras and backed-up scanners and transferring them to the network lab for data storage</td>
<td></td>
</tr>
</tbody>
</table>

### Punctuation
- End measurable objectives with periods
- Number measurable objectives

### Format and Writing Style
- Begin objectives with primary verb
- Omit
  - "The student will:
  - "Demonstrate the ability to"
  - "Demonstrate and understanding"
  - "Upon completion of the course, the student will be able to"

### Course Measurable Objectives
- Do not use the following verbs to construct measurable objectives. These behavioral terms are difficult to measure.
  - Know
  - Understand
  - Comprehend

- Use plural form when appropriate
  - Examples:
    1. Create and integrate appropriate tables, charts, or diagrams into documents.
    2. Classify decision by category and explain their modes of action.
    3. Describe/analyze procedural to change and recover refrigerant from operational refrigeration systems.
    4. Identify types of electromagnetic radiation

### Methods of Evaluation
- Order objectives, if appropriate, by cognitive level
  - Knowledge
  - Comprehension
  - Application
  - Analysis
  - Synthesis
  - Evaluation

### Punctuation
- Do not use periods unless in sentence format

### Format and Writing Style
- State evaluation in noun form when appropriate
  - Answers the question: "The student will be evaluated on noun."
  - Examples:
    - 500-word-long journal analyzing daily coursework
    - Critical analysis of 3-4 page based on peer-evaluated evaluations or play performances from an historical perspective
<table>
<thead>
<tr>
<th>Course Element</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of a student's role within a group</td>
<td>Do not use statements from obsolete checklist unless expanded with additional details that links the phrase to the measurable objectives. Omit: Exams(s), Quizzes(s), Class Performances(s), Performance Exam(s), Homework Problem(s), Laboratory Report(s), Assignments.</td>
</tr>
<tr>
<td>Make sure that all of the measurable objectives are evaluated. If Categories 2 and 3 are not appropriate use the phrase &quot;Not Applicable&quot;.</td>
<td></td>
</tr>
</tbody>
</table>

**Format and Writing Style**

**Category 1. Substantial written assignments**

Include approximate length, type, and number of written assignments.

Examples:

- A semester-long investment research project including financial data research of a corporation, a 5-10 page written report summarizing data with the use of charts and graphs.
- Three mid-term exams of 2-3 pages each covering financial topics such as retirement planning.
- An 8-page reaction paper concerning the student's experience at an unknown religious institution.

**Rationale**

If written assignments are not appropriate, write a one sentence rationale specific to the course.

Examples:

- Students are evaluated on their ability to use the Windows environment, manage files, and using Internet Explorer.
- This class evaluates students on problem-solving exercises that prepare students to take a company technical examination.
- Students are evaluated on assessment test and technical skills related to refrigeration systems.
- Students are evaluated on computations, analysis, and recommendations testing data related to economic judgments.

**Format and Writing Style**

**Category 2. Computational or non-computational problem solving demonstrations**

Examples:

- Calculation of system materials.
- Observation and test for given symptoms data.
- Construction of a refrigeration system model.
- Character similarities and inferences.
- Comprehension of electronic data, data graphs, and explanation of economic data and supporting numbers.

**Format and Writing Style**

**Category 3. Skills demonstrations**

Reflects tasks students will perform.

Specific to skills learned in the course.

Examples:
# Style Sheet of Local Course Review Practices

**Course Outline of Record (COR)**

9 June 2011

<table>
<thead>
<tr>
<th>Course Element</th>
<th>Guidelines</th>
</tr>
</thead>
</table>
| Methods of Evaluation        | **Category 4. Objective Examinations**  
Should connect to a measurable objective  
**Examples:**  
- Multiple choice questions using technical vocabulary  
- Short-answer questions on rules and regulations of soccer  
- Short-answer questions that refer to positioning with specific move situations and score  |
| Sample Assignments           | **Include expectations such as number of pages**  
**Include how an assignment is submitted**  
**Examples:**  
1. Write a one-page report explaining driving directions from student’s house to Mt. SAC including addresses of place and direction.  
2. Using nominal scales and interval scales compare the given summaries using the provided table numbers.  
3. Create a PowerPoint of human movement including images and execute a short quiz on the images. Add music and pronunciation in the timing. |
| Textbook                     | **Course textbooks support Title 5 reading expectations.** Representative textbooks should be no older than five years. The CRUs and UGCs require newer textbooks and may deny articulation based on older texts. |
| Additional Comments          | **Guidelines**  
Technological skills  
Handling of refrigerators  
Group demonstration of two developmental appropriate children’s activities  |

**Format and Writing Style**
APPENDIX C

Animal Science, Vet Tech, and Horticulture Handbooks
Contents:

Mission Statement
Benefits of Attending Mt. SAC
Facilities
Course Offerings
Career Options
Degrees & Certificates
Graduation Requirements
General Education Requirements
WELCOME TO MT. SAN ANTONIO COLLEGE
ANIMAL SCIENCE PROGRAM AND AGRI-TECHNOLOGY PROGRAM

The Animal Science Program at Mt. San Antonio College is one of the largest in California and the most comprehensive in Southern California. The College serves Los Angeles, San Bernardino, Orange and Riverside counties. Located in Los Angeles County, which is one of the largest dollar volume counties, utilizing animal products in the world.

BENEFITS OF ATTENDING MT. SAC
THE ANIMAL SCIENCE PROGRAM

A PRACTICAL APPROACH to Animal Science with hands on experience and interaction with the animal science industry. We utilize the nearby industries for numerous field trips and job placement.

DIVERSE CLASS SCHEDULING allows individuals to maintain employment while studying towards a degree or certificate. Most classes are offered in block mode (meet one or two days per week).

WORK EXPERIENCE PROGRAM earn units of credit while gaining on-the-job experience.

INDIVIDUALIZED AND PERSONALIZED INSTRUCTION with low student-to-teacher ratio.

FULL-TIME AND PART-TIME FACULTY with over 90 years of practical industry experiences.

STUDENTS ASSIST with the production and marketing of animals produced on the 250 acre school farm maintained by the College. Most of the land is used to produce feed for the animals raised by the College.
FACILITIES

Small Animal Facilities
Classrooms

THE COLLEGE FARM CONSISTS OF:

**BEEF UNIT** Consists of feed storage buildings, covered pen area, dry lots, natural pasture and irrigated pastures. The College maintains a breeding herd of approximately 20 breeding crossbred females used to breed project animals for our students.

**SHEEP UNIT** Consists of two barns, a project barn with a shearing area and a lambing barn with pens for holding the ewes and lambs after they exit the jills. We also have a working corral with cutting chutes and sorting pens. We have 30 acres of pasture for our flock of 45 ewes, Suffolk and Hampshire’s, and two stud rams. Lambs are raised and sold through a club lamb sale that is put on by the student. The lambs go to 4-H and F.F.A. students where many champions have been purchased for the flock.

**SWINE UNIT** A modern confinement Swine Unit with a farrow to finish program. The College maintains several sows and a boar for students to gain experience in swine production.

**HORSE UNIT** Consists of an eight stall barn with two foaling stalls and a stallion barn and paddock with plenty of paddocks for young horses. Training facilities include a bull pen, goose neck arena, hot walker and plenty of trails to ride on. An Artificial Insemination Lab is housed in the barn. There are eight broodmares and a stallion on campus along with numerous offspring for students to work with to get experience.
COURSE OFFERINGS

Courses are offered which lead to an Associate in Science Degree in Animal Science with specialization in Livestock Management, Horse Ranch Management, Pet Science and Agri-Technology.

In addition, certificates are offered in Livestock Management, Horse Ranch Management and Pet Science.
CAREER OPTIONS IN ANIMAL SCIENCE:

Note: Job titles in all caps are from the "targeted occupations" list. Also, some jobs may require local and/or state certification, licensing, or advanced degrees.

Agricultural Product Inspector
Animal Breeder
Animal Control Officer
Animal Health Products Warehouse Person
Animal Nursery Worker
Animal Research Scientist
Animal Shelter Attendant
Animal Shelter Clerk
Announcer/Ringmaster/Ring Steward
ARTIFICIAL INSEMINATION TECHNICIAN
AUCTION YARD MANAGER/MARKETER
AUCTION YARD WORKER
Auctioneer
Beef Cattle Improvement Association Bull Test Manager
Beef Ranch Herdsperson/Manager
Beef Ranch Owner/Operator
Beef Scientist
Boarding Stable Manager
Bookkeeper
Brand Inspector
Breed Association Field Representative
College Professor
Commodity Grader (including meat, poultry, dairy, wool)
Computer Operator/Analyst
Dairy Calf Feeder
Dairy Cow Feeder
Dairy Equipment Repair Person
Dairy Farm Herdsperson/Manager
Dairy Inspector
Dairy Scientist
Dairy/Milk Processor
Embryo Transplant Technician
Equitation Instructor
Fair Manager
Farm Accountant
FARM ADVISOR/CONSULTANT
FARRIER (Horse Shoer)
Federal Meat Grader
Federal Meat Inspector
FEED BATCH PROGRAMMER
Feed Field Person
Feed Lot Crew Foreperson
FEED MILL OPERATOR/MANAGER
Feed Salesperson/Representative
CAREER OPTIONS IN ANIMAL SCIENCE (continued)

Feed Store Clerk
Feed Analysis Technician
Feedlot Manager
FIELD REPRESENTATIVE
Financial Loan Officer
Fish Farmer
Game Bird Farmer
GENERAL MANAGER
Geneticist
Government Agriculture Agency: Administrator/Manager/Supervisor
HERDSPERSON/FOREPERSON
Horse Agent/Trader
HORSE BREEDING FARM MANAGER
Horse Ranch Manager
Horse Ranch Owner/Operator
Horse Scientist
Horse Stable Attendant
Horse Stable Manager
Horse Trainer
Insurance Agent
Kennel Manager
Livestock Advertiser
Livestock Appraiser
Livestock Buyer/Broker
Livestock Consultant/Analyst
Livestock Equipment Manufacturer Sales Representative
Livestock Groomer/Fitter
Livestock Journalist
Livestock Marketing Agent
Livestock Ranch Tenant
Livestock Transportation Owner
Livestock/Poultry Researcher
Meat Cutter (Retail)
Meat Inspector/Grader
Meat Marketing (Wholesale)
Milk Tester
NUTRITIONIST
Pet Store Jobs
Pharmaceutical Sales Representative
PHONE SALESPERSON/TELEMARKETER
Range Management Specialist
Range Manager
SALESPERSON, LIVESTOCK SUPPLIES
SALESPERSON, SEMEN
Semen Collector
Sheep Ranch Herdperson/Manager
Sheep Ranch Owner/Operator
Sheep Scientist
SHEPHERD
Slaughter House Manager
State Dairy Analyst
CAREER OPTIONS IN ANIMAL SCIENCE (continued)
Swine Farm Herdsman/Manager
Swine Farm Owner/Operator
Swine Scientist
TEACHER, ANIMAL SCIENCE
USDA Animal Health Inspector
USDA Meat Inspector
WAREHOUSE SUPERVISOR
Weigh Master/Clerk
ASSOCIATE IN SCIENCE DEGREE MAJORS IN
AGRI-TECHNOLOGY (20101)

The major in Agri-Technology is primarily for those people who want to follow a career path in teaching at the high school level in agriculture. The program will prepare students to transfer to Cal Poly Pomona, Cal Poly SLO, Chico State or Fresno State to complete their studies.

◆ Requirements for the Major:

AGAB 20  Microcomputer Applications in Agriculture
AGAG 1   Food, Land Use and Politics—A Global Perspective
AGAG 91  Agricultural Calculations
AGAN 1   Animal Science
AGOR 1   Horticultural Sciences
AGOR 32  Landscaping and Nursery Management
AGOR 56  Engine Diagnostics
AGOR 71  Landscape Construction Fundamentals

PLUS
Select three (3) courses from the following:

AGFR 20  Conservation of Natural Resources
AGLI 14  Swine Production
AGLI 16  Horse Production
AGLI 17  Sheep Production
AGLI 30  Beef Production
AGOR 12  Environmental Vegetable Gardening
AGOR 24  Integrated Pest Management
AGOR 62  Landscape Irrigation Design and Installation
AGPE 70  Pet Shop Management
AGPE 71  Canine Management
ASSOCIATE IN SCIENCE DEGREE MAJORS IN LIVESTOCK MANAGEMENT (20103)

❖ Requirements for the Major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 20</td>
<td>Microcomputer Applications in Agriculture</td>
</tr>
<tr>
<td>AGAG 1</td>
<td>Food, Land Use and Politics—A Global Perspective</td>
</tr>
<tr>
<td>AGAG 59 or 60 or 61 or 62</td>
<td>Work Experience in Agriculture</td>
</tr>
<tr>
<td>AGAN 1</td>
<td>Animal Science</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>AGAN 94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
</tr>
<tr>
<td>AGLI 16</td>
<td>Horse Production</td>
</tr>
<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
</tr>
<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

PLUS
Select six [6] units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 53</td>
<td>Small Engine Repair 1</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>
CERTIFICATES OFFERED IN LIVESTOCK MANAGEMENT (60103)

This certificate program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services. All courses are applicable for degree requirements.

◊ Requirements for the Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 20</td>
<td>Microcomputer Applications in Agriculture</td>
</tr>
<tr>
<td>AGAG  1</td>
<td>Food, Land Use and Politics—A Global Perspective</td>
</tr>
<tr>
<td>AGAG 91</td>
<td>Agricultural Calculations</td>
</tr>
<tr>
<td>AGAN  1</td>
<td>Animal Science</td>
</tr>
<tr>
<td>AGAN  2</td>
<td>Animal Nutrition</td>
</tr>
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<td>Animal Breeding</td>
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</tr>
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<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

PLUS
Select six [6] units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>BUSM 66</td>
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<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>
ASSOCIATE IN SCIENCE DEGREE MAJORS IN HORSE RANCH MANAGEMENT (20102)

✧ Requirements for the Major:

AGAB 20  Microcomputer Applications in Agriculture
AGAG 59 or 60 or 61 or 62  Work Experience in Agriculture
AGAN 2  Animal Nutrition
AGAN 94  Animal Breeding
AGLI 16  Horse Production or
AGLI 81  Light Horse Management
AGLI 18  Horse Ranch Management
AGLI 19  Horse Hoof Care
AGLI 20  Horse Behavior and Training
AGLI 96  Animal Sanitation and Disease Control
AGLI 97  Artificial Insemination of Livestock

PLUS
Select six [6] units from the following:

AGHE 84A  Applied Animal Health Procedures
AGOR 53  Small Engine Repair 1
AGOR 71  Landscape Construction Fundamentals
BUSM 20  Principles of Business
BUSM 66  Small Business Management

CERTIFICATES OFFERED IN HORSE RANCH MANAGEMENT (60102)

This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services. All courses are applicable for degree requirements.

✧ Requirements for the Certificate:

AGAB 20  Microcomputer Applications in Agriculture
AGAG 59 or 60 or 61 or 62  Work Experience in Agriculture
AGAN 2  Animal Nutrition
AGAN 94  Animal Breeding
AGLI 16  Horse Production or
AGLI 18  Horse Ranch Management
AGLI 19  Horse Hoof Care
AGLI 96  Animal Sanitation and Disease Control
AGLI 97  Artificial Insemination of Livestock
ASSOCIATE IN SCIENCE DEGREE MAJORS IN PET SCIENCE (20104)

❖ Requirements for the Major:

AGAB 20 Microcomputer Applications in Agriculture
AGAN 1 Animal Science
AGAN 2 Animal Nutrition
AGAN 51 Animal Handling and Restraint
AGAN 94 Animal Breeding
AGLI 96 Animal Sanitation and Disease Control
AGPE 70 Pet Shop Management
AGPE 71 Canine Management
AGPE 72 Feline Management
AGPE 73 Tropical and Cold Water Fish Management
AGPE 74 Reptile Management
AGPE 76 Aviculture: Cage and Aviary Birds

CERTIFICATES OFFERED IN PET SCIENCE (60104)

This certificate program is designed to give students basic skills in production and marketing of pets at the wholesale and retail level. All courses are applicable for degree requirements.

❖ Requirements for the Certificate:

AGAB 20 Microcomputer Applications in Agriculture
AGAN 1 Animal Science
AGAN 2 Animal Nutrition
AGAN 51 Animal Handling and Restraint
AGAN 94 Animal Breeding
AGLI 96 Animal Sanitation and Disease Control
AGPE 70 Pet Shop Management
AGPE 71 Canine Management
AGPE 72 Feline Management
AGPE 73 Tropical and Cold Water Fish Management
AGPE 76 Aviculture: Cage and Aviary Birds
BUSM 66 Small Business Management
AGRICULTURE: AGRI-BUSINESS

AGAB 20—MICROCOMPUTER APPLICATIONS IN AGRICULTURE
54 hours lecture
3 UNITS
Degree Appropriate, CSU, UC

Advisory Prerequisite: Eligibility for ENGL 68.

Use of word processing, data base, spreadsheets, and graphic programs for students interested in agricultural business, nursery and landscape, equipment, and farm management.

AGRICULTURE: GENERAL SUBJECTS

AGAG 1—FOOD PRODUCTION, LAND USE AND POLITICS - A GLOBAL PERSPECTIVE
3 UNITS
54 hours lecture.
Degree Appropriate, CSU, UC

Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

AGAG 59, 60, 61, 62—WORK EXPERIENCE IN AGRICULTURE
1-4 UNITS
(May be taken four times for credit.)
(May be taken for Credit/No Credit only.)
Degree Appropriate

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required for each unit of credit.

AGAG 91—AGRICULTURAL CALCULATIONS
3 UNITS
54 hours lecture.
Degree Appropriate

Prerequisite: Eligibility for MATH 51.

Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions, and standardizing butterfat and solids non-fat.

AGRICULTURE: ANIMAL SCIENCE - GENERAL

AGAN 1—ANIMAL SCIENCE
3 UNITS
54 hours lecture.
Degree Appropriate, CSU, UC

Fundamental problems and essential concepts of animal production. Includes a study of the types of domestic animals and their utilization by humans.

AGAN 2—ANIMAL NUTRITION
3 UNITS
54 hours lecture.
Degree Appropriate, CSU

Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

AGAN 51—ANIMAL HANDLING AND RESTRAINT
3 UNITS
56 hours lecture, 54 hours lab.
Degree Appropriate, CSU
This course will cover the methods of properly handling large and small animals and will include chemical and physical techniques of restraint.

**AGAN 94—ANIMAL BREEDING**

54 hours lecture.  
Degree Appropriate

The science of animal breeding, including fundamentals of inheritance, reproduction, and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

**AGRICULTURE: FORESTRY, CONSERVATION**

**AGFR 20—CONSERVATION OF NATURAL RESOURCES**

54 hours lecture.  
Degree Appropriate, CSU, UC

Prerequisite: Eligibility for ENGL 68.

Natural resources and their conservation. The effects of man on the natural conditions and resources. History and present day conservation agencies and laws affecting conservation of natural resources.

**AGRICULTURE: ANIMAL HEALTH TECHNOLOGY**

**AGHE 84A and B—APPLIED ANIMAL HEALTH PROCEDURES**

54 hours lab.  
Degree Appropriate

Fall or spring field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with school domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices between Fall and Spring semesters.

**LIVESTOCK PRODUCTION**

**AGLI 12—EXOTIC ANIMAL MANAGEMENT**

54 hours lectures.  
Degree Appropriate

Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.

**AGLI 14—SWINE PRODUCTION**

Spring semester  
36 hours lecture, 54 hours lab.

A study of the various types of swine enterprise and the ways and means of entering them. Includes work in all major areas of swine management including handling, feeding, breeding, farrowing, butchering and marketing. Practical skills are taught by the use of college farm. Required of all animal husbandry majors.

**AGLI 16—HORSE PRODUCTION**

Fall semester  
54 hours lecture, 54 hours lab.

Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes experience in the care of horse and tack.

**AGLI 17—SHEEP PRODUCTION**

Spring semester  
36 hours lecture, 54 hours lab.

A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area. Required of all animal husbandry majors.
AGLI 18—HORSE RANCH MANAGEMENT  
54 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Advisory prerequisite: AGLI 16

Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm lay out, estrous cycles, breeding problems and stallion care.

AGLI 19—HORSE HOOF CARE  
18 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

AGLI 20—HORSE BEHAVIOR AND TRAINING  
18 hours lecture, 54 hours lab.  
2 UNITS  
Degree Appropriate

Co requisite: AGLI 16 or AGLI 18 (may have been taken previously) or equivalent experience with horses.

Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green breaking two-year olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

AGLI 30—BEEF PRODUCTION  
Fall Semester  
36 hours lecture, 54 hours lab.  
3 UNITS  
Degree Appropriate, CSU

Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds and feedlot operations will be stressed.

AGLI 34—LIVESTOCK JUDGING AND SELECTION  
18 hours lecture, 54 hours lab.  
2 UNITS  
Degree Appropriate, CSU, UC

A study of the form and appearance of farm animals as they relate to their function. Laboratory section includes judging of livestock.

AGLI 96—ANIMAL SANITATION AND DISEASE CONTROL  
54 hours lecture.  
3 UNITS  
Degree Appropriate, CSU

Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmission of infectious diseases, principles of sanitation, and the fundamentals of immunology.

AGLI 97—ARTIFICIAL INSEMINATION OF LIVESTOCK  
Spring Semester  
18 hours lecture, 54 hours lab.  
2 UNITS  
Degree Appropriate

Theory and application of artificial insemination of livestock, including semen evaluation and processing. Pregnancy diagnosis will be covered as an aid to the inseminator.

AGRICULTURE: ORNAMENTAL HORTICULTURE

AGOR 1—HORTICULTURAL SCIENCE  
54 hours lecture.  
3 UNITS  
Degree Appropriate, CSU

The basic horticulture skills and techniques for use in gardening, nursery and landscape applications. Emphasis on propagation, cultural practices and the study of plant relationships, structure, growth and development.
AGOR 24—INTEGRATED PEST MANAGEMENT
36 hours lecture, 54 hours lab.
Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws and regulations of pesticides.

AGOR 32—LANDSCAPING AND NURSERY MANAGEMENT
Fall Semester
36 hours lecture, 54 hours lab.
Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides, and growth regulators; irrigation; mechanization; financing; personnel management, retail displays, advertising, and customer relationships; federal, state and local laws and regulations. Field trips are included.

AGOR 53—SMALL ENGINE REPAIR 1
36 hours lecture, 54 hours lab.
(May be taken for option of letter grade or Credit/No Credit.)
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawn mowers, chain saws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas powered equipment.

AGOR 62—LANDSCAPE IRRIGATION - DESIGN AND INSTALLATION
36 hours lecture, 54 hours lab.
(May be taken for option of letter grade or Credit/No Credit.)
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

AGOR 71—LANDSCAPE CONSTRUCTION FUNDAMENTALS
36 hours lecture, 54 hours lab.
(May be taken for option of letter grade or Credit/No Credit.)
Advisory Prerequisite: Eligibility for ENGL 68.
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry, and surveying techniques as applied to landscaping.

AGRICULTURE: PET SCIENCE

AGPE 70—PET SHOP MANAGEMENT
Fall Semester
54 hours lecture.
A study of the pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes topics related to the organization and operation of pet shops, animal husbandry practices for species commonly sold in the industry, and sound business management skills.

AGPE 71—CANINE MANAGEMENT
36 hours lecture, 54 hours lab.
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling, training and grooming of dogs.

AGPE 72—FELINE MANAGEMENT
Spring Semester
3 UNITS
Degree Appropriate
54 hours lecture.

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and management of cats. Includes breed identification and characteristics, grooming and showing, feeding and nutrition, practical care, behavior, breeding, and housing kittens.

AGPE 73—TROPICAL AND COLDWATER FISH MANAGEMENT
Fall Semester
56 hours lecture (9 week course)
2 UNITS Degree Appropriate

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

AGPE 74—REPTILE MANAGEMENT
Fall Semester
36 hours lecture (9 week course)
2 UNITS Degree Appropriate

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and keeping of reptiles, including snakes, lizards, turtles, tortoises, newts, salamanders, and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding, and raising of reptiles will be offered.

AGPE 76—AVICULTURE - CAGE AND AVIARY BIRDS
Spring Semester
54 hours lecture.
3 UNITS Degree Appropriate

A study of cage and aviary birds which are marketed in the wholesale and retail pet trade including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. The course will include information on psittacines, soft bills, finches, game birds and ornamental waterfowl.

BUSINESS: MANAGEMENT

BUSM 20—PRINCIPLES OF BUSINESS
54 hours lecture.
3 UNITS Degree Appropriate, CSU, UC

Prerequisite: Eligibility for ENGL 68

Study of business and its functions, background, development, organization, and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.

BUSM 66—SMALL BUSINESS MANAGEMENT
54 hours lecture.
3 UNITS Degree Appropriate

Practical problems encountered in organizing and operating a small business enterprise. Included are units in initiating the business, financial and administrative control, legal and government relationships and other related considerations.
GRADUATION REQUIREMENTS 2004/2005

Mt. San Antonio College offers two associate degree programs. The Associate in Science (A.S.) Degree is designed for students with vocational majors while the Associate in Arts (A.A.) Degree is designed for students planning to transfer and seek a baccalaureate degree. The requirements listed below are for the 2004/2005 academic year and are based upon information available at the time of catalog publication.

Both degrees require 60 units and a letter grade of "C" or better in each required course. The general education requirements are the same for both degrees except for the mathematics competency. The Associate in Arts degree requires 56 of the associate degree units to be transferable as applicable to the baccalaureate degree.

Students are advised to contact the Advisement Center regarding the most current information regarding general education requirements. Agriculture faculty members should be contacted regarding transfer and program questions.

Associate in Science Degree (A.S)

Sixty (60) associate degree appropriate units with a grade of "C" or higher.

Mathematics COMPETENCY (minimum of three (3) units). This requirement is met by completing one of the following courses with a grade of "C" or better:

1. AGAG 91 Agricultural Calculations, or
   ELMA 65B Mathematics of Electronics, or
   MATH 51 Elementary Algebra, or
   MATH 51A Elementary Algebra – 1st half and
   MATH 51 B Elementary Algebra – 2nd half, or
   MATH 52 Algebra with Applications 1 and
   MATH 72 Algebra with Applications 2, or
   MATH 59 Fundamentals of Applied Mathematics
   or
2. Completing a more advanced college level mathematics course with a grade of "C" or better.
   or
3. Obtaining a satisfactory score on the Elementary Algebra Competency Examination.

Petitioning for Graduation

All students must file a petition for graduation with the Admissions and Records office and have on file all required documents and transcripts. The deadline dates are on or about March 31st for Spring and Summer graduation and on or about October 31st for Fall graduation. Students also have the option of filing a graduation petition one semester prior to completing all coursework. Please check the Schedule of Credit Classes for further information.

Multiple Degrees

The Associate in Science degree shall be awarded to those graduates who majored in one of the occupational programs at
Mt. San Antonio College. Students may be awarded multiple Associate degrees. Each additional Associate degree requires 18 units of course work beyond the 60 units required for the first degree, including the satisfactory completion of all the required courses of the second major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

**Residency Requirement**

The Residency Requirement for Mt. San Antonio College can be met in either of two ways: (1) twelve (12) units in residence and enrollment in the last semester or (2) forty-five (45) units in residence, if the last semester is not at Mt. San Antonio College.

**GPA Requirement**

A Mt. San Antonio College degree total grade point average and all college total grade point average of 2.0.

**Physical Well-Being Requirement**

Complete at least one of the physical education activity courses with the following prefixes: DNCE, PE-A, PE-F, PE-I, PE-L, PE-S, PE-X.

**GENERAL EDUCATION REQUIREMENTS**

**Philosophy Statement**

The general education component of the associate degree introduces students to the humanities, social sciences, natural sciences, applied sciences, and technology. It exposes students to different areas of study; demands the acquisition and use of reading, writing, and critical thinking skills at appropriate post-secondary levels; imparts a sense of our shared cultural heritage and how to function as responsible, ethical individuals in a complex society; and instills a level of intellectual curiosity and self-awareness conducive to lifelong learning and personal growth.

Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:

- transfer to and function successfully in a baccalaureate degree granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. They provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study.

Courses that fulfill general education requirements must:

1. Require post-secondary level skills in reading, writing, computation, and critical thinking.

2. Improve students' abilities to:
   - communicate oral and written ideas effectively;
   - define problems, design solutions, critically analyze results;
   - work effectively and cooperatively with others;
   - work independently;
• develop and question personal and societal values, make informed choices, and accept responsibility for one's decisions;
• function as active, responsible, ethical citizens;
• acquire the curiosity and skills essential for lifelong learning.

3. Impart understanding, knowledge, and appreciation of:

• our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-western cultures;
• the earth's ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
• human social, political, and economic institutions and behavior, including their inter-relationships;
• the psychological, social and physiological dimensions of men and women as individuals and as members of society.

Criteria for inclusion in each of the above categories are itemized below:

Courses that fulfill general education requirements must fall into one of the content categories listed below:

A. Communication and Critical Thinking
B. Science and Math
C. Arts and Humanities
D. Social Sciences
E. Lifelong Understanding and Self-Development

A. Communication and Critical Thinking

These courses emphasize both the content and form of communication. They teach students the relationship of language to logic, as well as how to analyze, criticize, and advocate ideas, to reason deductively and inductively, and to reach sound conclusions. Courses fulfilling this requirement:

• provide understanding of the psychological and social significance of communication;
• illustrate how communication operates in various situations;
• focus on communication from the rhetorical perspective: reasoning, advocacy, organization, accuracy; the discovery, critical evaluation, and reporting of information; reading, listening, speaking, and writing effectively;
• provide active participation and practice in written and oral communication.

B. Science and Mathematics

These courses impart knowledge about living and non-living systems, and mathematical concepts and quantitative reasoning with applications. Courses fulfilling this requirement:

• promote understanding and appreciation of the methodologies and tools of science;
• emphasize the influence of scientific knowledge on the development of civilization;
• impart appreciation and understanding of basic concepts, not just skills;
• offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC degree competency requirements.)

C. Humanities

These courses cultivate intellect, imagination, sensibility and sensitivity. They encourage students to respond subjectively as well as objectively, and to develop a sense of the integrity of emotional and intellectual responses. Courses fulfilling this requirement:
• study great work of the human imagination;
• increase awareness and appreciation of the traditional humanistic disciplines such as art, dance, drama, literature, and music;
• impart an understanding of the interrelationship between creative art, the humanities, and the self;
• provide exposure to both Western and non-Western cultures;
• may include a foreign language course that contains a cultural component as opposed to a course that focuses on skills acquisition.

D. Social Sciences

These courses explore, at the micro and macro-level, the social, political, and economic institutions that underpin society. Courses fulfilling these requirements:

• promote understanding and appreciation of social, political, and economic institutions;
• probe the relationship between these institutions and human behavior;
• examine these institutions in both their historical and contemporary context;
• include the role of, and impact on, non-white ethnic minorities and women;
• include both western and non-western settings.

E. Lifelong Understanding and Self-Development

These courses facilitate an understanding of human beings as integrated physiological, social and psychological organisms. Courses fulfilling this requirement:

• provide selective consideration of human behavior, sexuality, nutrition, health, stress, implications of death and dying, and the relationship of people to the social and physical environment.

Adapted from CSU Executive Order 595 and Title 5 Section 49405.1
GENERAL EDUCATION REQUIREMENTS FOR 2004-2005

AREA A: Communication in the English Language (6 units):
Select two (2) courses from the following:

- ENGL 1A Freshman Composition, or
- ENGL 1AH Freshman Composition – Honors
- SPCH 1A Public Speaking, or
- SPCH 1AH Public Speaking – Honors

AREA B: The Physical Universe and Life (3 units):
Select one (1) course from the Physical Sciences or Life Sciences:

Physical Sciences

- ASTR 5 Introduction to Astronomy
- ASTR 6 Astronomical Observing
- CHEM 1A General Chemistry
- CHEM 1B General Chemistry
- CHEM 2A Fundamentals of Chemistry
- CHEM 2B Fundamentals of Chemistry
- GEOG 1 Elements of Physical Geography
- GEOL 1 Physical Geology
- GEOL 7 Geology of California
- GEOL 8 Earth Science
- GEOL 8H Earth Science – Honors
- GEOL 8L Earth Science Laboratory
- GEOL 9 Environmental Geology
- GEOL 10 Natural Disasters
- GEOL 13 Evolution of the Earth
- METO 3 Weather and the Atmospheric Environment
- METO 3L Weather and the Atmospheric Environment - Laboratory
- OCEA 10 Introduction to Oceanography
- OCEA 10H Introduction to Oceanography – Honors
- OCEA 10L Introduction to Oceanography – Laboratory
- PHSC 7 Physical Science
- PHSC 7L Physical Science Laboratory
- PHYS 1 Physics
- PHYS 2AG General Physics
- PHYS 2BG General Physics
- PHYS 4A Engineering Physics

Life Sciences

- AGOR 1 Horticultural Science
- ANAT 10A Introductory Human Anatomy
- ANAT 10B Introductory Human Physiology
- ANAT 35 Human Anatomy
- ANTH 1 Biological Anthropology
- ANTH 1H Biological Anthropology – Honors
- ANTH 1L Biological Anthropology Laboratory
- BIOL 1 General Biology
- BIOL 2 Plant and Animal Biology
- BIOL 3 Ecology and Field Biology
- BIOL 4 Biology for Majors
- BIOL 4H Biology for Majors – Honors
- BIOL 6 Humans and the Environment
Life Sciences (continued)

BIOL 6L  Humans and the Environment Laboratory
BIOL 17  Neurobiology and Behavior
BIOL 20  Marine Biology
BIOL 21  Marine Biology Laboratory
MICR 1  Principles of Microbiology
PSYC 1B  Biological Psychology
ZOOI 1  Invertebrate Zoology
ZOOI 2  Vertebrate Zoology

AREA C: Arts and Humanities (6 units):

Select two (2) courses, six (6) units minimum, with at least one (1) course from the Arts and one (1) from Humanities:

Arts

ARTA 1  Understanding the Visual Arts
ARTA 1H  Understanding the Visual Arts - Honors
ARTA 2  Topics in Visual Art and Culture
ARTA 2H  Topics in Visual Art and Culture - Honors
ARTA 3  Survey of Women and Gender in Art
ARTA 3H  Survey of Women and Gender in Art - Honors
ARTA 4  History of Western Art: Prehistoric Through Gothic
ARTA 4H  History of Western Art: Prehistoric Through Gothic - Honors
ARTA 5  History of Western Art: Renaissance Through Modern
ARTA 5H  History of Western Art: Renaissance Through Modern - Honors
ARTA 6  History of Modern Art
ARTA 6H  History of Modern Art - Honors
ARTA 9  Asian Art
ARTA 11  Arts of Africa, Oceania, and Native America
ARTA 12  Pre-Columbian Art of the Americas
ARTA 12H  Pre-Columbian Art of the Americas - Honors
ARTB 14  Introduction to Art Fundamentals
ARTD 15A  Drawing: Beginning
ARTD 20  Design: Two Dimensional
ARTS 22  Design: Three Dimensional
ARTD 25A  Painting: Beginning
ARTS 30A  Ceramics: Beginning
ARTS 40A  Sculpture: Beginning
DN-T 20  History and Appreciation of Dance
ID 180  History of Interior Architecture and Furnishings
MUS 7  Fundamentals of Music
MUS 11A  Music Literature Survey
MUS 11B  Music Literature Survey
MUS 12  History of Jazz
MUS 13  Introduction to Music Appreciation
MUS 13H  Introduction to Music Appreciation - Honors
MUS 14  World Music
MUS 15  Rock Music History and Appreciation
PHOT 15  History of Photography
THTR 9  Introduction to Theatre Arts
THTR 10  History of Theatre Arts
THTR 11  Principles of Acting
Humanities

CHIN 1  Beginning Chinese
CHIN 2  Elementary Chinese
CHIN 3  Intermediate Chinese
CHIN 4  Intermediate Chinese
ENGL 1B  English – Introduction to Literary Types
ENGL 1BH English – Introduction to Literary Types – Honors
FRCH 1  Elementary French
FRCH 2  Elementary French
FRCH 3  Intermediate French
FRCH 4  Intermediate French
FRCH 60 French Culture Through Cinema
GERM 1  Elementary German
GERM 2  Elementary German
GERM 3  Intermediate German
GERM 4  Intermediate German
*HIST 1  History of the U.S.
*HIST 3  History of World Civilization
*HIST 3H History of World Civilization – Honors
*HIST 4  History of World Civilization
*HIST 4H History of World Civilization – Honors
*HIST 7  History of the U.S.
*HIST 7H History of the U.S. – Honors
*HIST 8  History of the U.S.
*HIST 8H History of the U.S. – Honors
*HIST 10 History of Asia
*HIST 11 History of Asia
*HIST 19 History of Mexico
*HIST 30 History of the African American
*HIST 31 History of the African American
*HIST 35 History of Africa
*HIST 36 Women in American History – Beyond the Stereotypes
*HIST 39 California History
*HIST 40 History of the Mexican American
HUMA 1  The Humanities
ITAL 1  Elementary Italian
ITAL 2  Elementary Italian
ITAL 3  Intermediate Italian
ITAL 4  Intermediate Italian
ITAL 60 Italian Culture Through Cinema
JAPN 1  Elementary Japanese
JAPN 2  Elementary Japanese
JAPN 3  Intermediate Japanese
JAPN 4  Intermediate Japanese
JAPN 5  Advanced Japanese
LIT 1  Early American Literature
LIT 2  Modern American Literature
LIT 6A Survey of English Literature
LIT 6B Survey of English Literature
LIT 11A World Literature
LIT 11B World Literature
LIT 14 Introduction to Modern Poetry
LIT 15 Introduction to Cinema
LIT 20 African American Literature
LIT 25 Contemporary Mexican American Literature
LIT 33 Images of Women in Literature
LIT 35 Science Fiction and Fantasy Survey
LIT 36 Introduction to Mythology
LIT 40 Children's Literature
Humanities (continued)

LIT 46 The Bible as Literature: Old Testament
LIT 47 The Bible as Literature: New Testament
PHIL 5 Introduction to Philosophy
PHIL 5H Introduction to Philosophy – Honors
PHIL 12 Ethics
PHIL 12H Ethics – Honors
PHIL 15 Major World Religions
PHIL 15H Major World Religions – Honors
PHIL 20A History of Western Philosophy
PHIL 20B History of Western Philosophy
SIGN 80 American Sign Language I
SIGN 85 American Deaf Culture
SPAN 1 Elementary Spanish
SPAN 1H Elementary Spanish – Honors
SPAN 2 Elementary Spanish
SPAN 2H Elementary Spanish – Honors
SPAN 3 Intermediate Spanish
SPAN 3H Intermediate Spanish – Honors
SPAN 4 Intermediate Spanish
SPAN 11 Spanish for the Spanish Speaking
SPAN 12 Spanish for the Spanish Speaking

* Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.

AREA D:

Social, Political and Economic Institutions (6 units):

U.S. History and American Institutions

Select one (1) course from the following:

*HIST 1 History of the U.S.
*HIST 7 History of the U.S.
*HIST 7H History of the U.S. – Honors
*HIST 8 History of the U.S.
*HIST 8H History of the U.S. – Honors
*HIST 30 History of the African American
*HIST 31 History of the African American
*HIST 36 Women in American History – Beyond the Stereotypes
*HIST 40 History of the Mexican American
POLI 1 Political Science
POLI 1H Political Science – Honors
POLI 25 Politics of the Mexican American
POLI 35 African American Politics
Elective Courses – select at least one (1) course from the following list (3 units):

**AGAG 1** Food Production, Land Use and Politics – A Global Perspective
**AGFR 20** Conservation of Natural Resources
**ANTH 3** Archaeology
**ANTH 5** Principles of Cultural Anthropology
**ANTH 22** General Cultural Anthropology
**ANTH 30** The Native American
**BUSC 1A** Principles of Economics – Macroeconomics
**BUSC 1AH** Principles of Economics – Macroeconomics – Honors
**BUSC 1B** Principles of Economics – Microeconomics
**BUSC 1BH** Principles of Economics – Microeconomics – Honors
**CHLD 1** Child, Family, and Community
**CHLD 10** Child Growth and Development

* Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.

Elective Courses (continued)

**CHLD 10H** Child Growth and Development – Honors
**GEOG 2** Human Geography
**GEOG 5** World Regional Geography
**GEOG 30** Geography of California
**HIST 3** History of World Civilization
**HIST 3H** History of World Civilization – Honors
**HIST 4** History of World Civilization
**HIST 4H** History of World Civilization – Honors
**HIST 10** History of Asia
**HIST 11** History of Asia
**HIST 19** History of Mexico
**HIST 35** History of Africa
**HIST 39** California History
**JOUR 2** Mass Media and Society
**POLI 2** Political Science
**POLI 5** Political Science Theory
**POLI 9** Introduction to International Relations
**PSYC 1A** Introduction to Psychology
**PSYC 1AH** Introduction to Psychology – Honors
**PSYC 25** The Psychology of Women
**SOC 1** Sociology
**SOC 1H** Sociology – Honors
**SOC 2** Sociology
**SOC 2H** Sociology – Honors
**SOC 4** Introduction to Gerontology
**SOC 5** Introduction to Criminology
**SOC 14** Marriage and the Family
**SOC 15** Child Development
**SOC 20** Sociology of Ethnic Relations
**SOC 20H** Sociology of Ethnic Relations – Honors
**SPCH 26** Interpersonal Communication
**SPCH 26H** Interpersonal Communication – Honors
AREA E:

Lifelong Understanding and Self-Development (3 units):

Select one (1) course from the following:

- AD 3 Chemical Dependency
- BIOL 5 Contemporary Health Issues
- BIOL 13 Human Reproduction, Development and Aging
- BIOL 15 Human Sexuality
- BIOL 15H Human Sexuality – Honors
- COUN 5 Career/Life Planning
- FCS 41 Life Management
- NF 10 Nutrition for Personal Health and Wellness
- NF 25 Essentials of Nutrition
- NF 25H Essentials of Nutrition – Honors
- NF 28 Cultural and Ethnic Foods
- PE 34 Fitness for Living
- PSYC 14 Developmental Psychology
- * PSYC 25 The Psychology of Women
- PSYC 26 Psychology of Sexuality
- PSYC 33 Psychology for Effective Living

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.
Contents:
Mission Statement
Registered Vet Tech
Benefits of Attending Mt. SAC
Facilities
Course Offerings
Degrees & Certificates
Graduation Requirements
General Education Requirements
Accredited by the American Veterinary Medical Association, the Registered Veterinary Technology Program at Mt. San Antonio College is located in Los Angeles County. Because of our central location the college serves the counties of Los Angeles, San Bernardino, Orange and Riverside. The program offered prepares the individual for licensing and a career in many different areas of animal health, such as:

REGISTERED VETERINARY TECHNICIAN:

Students will work under the supervision of licensed private organizations including veterinary hospitals, research vivariums, animal shelters, and other animal care agencies.

UPON COMPLETION AND LICENSING YOU CAN QUALIFY FOR THE FOLLOWING CAREERS:

Veterinary Practices
  Small Animal
  Large Animal
  Specialty Practices:
    Equine
    Dairy
    Beef
    Swine
    Sheep
    Animal Reproduction
    Avian
    Exotics

Biomedical Research Facilities
Pharmaceutical Sales and/or Services
  Diagnostic Laboratories
Fish and Game/Forest Service
Zoo/Wildlife Medicine/Aquatic
Humane Societies/Animal Control
Livestock Health Managers
Pet Store/Animal Care
Food Inspection
The Military
Governmental Agencies
Veterinary Medical Related Sales and Services
BENEFITS OF ATTENDING MT. SAC
REGISTERED VETERINARY TECHNOLOGY PROGRAM

MT. SAN ANTONIO COLLEGE is located in Los Angeles County, which is one of the
largest dollar volume counties utilizing both products and licensed Registered Veterinary
Technicians. Employment in the industry provides five (5) to seven (7) jobs for every
licensed Registered Veterinary Technician.

A PRACTICAL APPROACH to Registered Veterinary Technology with hands-on
experience and interaction with the Registered Veterinary Technology industry is offered.
The college supports a working 250 acre farm and an animal care facility to provide
practical experiences for students.

DIVERSE CLASS scheduling allows individuals to maintain employment and still seek a
degree.

WORK EXPERIENCE PROGRAM. Students can earn units for on-the-job work
experience. California has thousands of veterinary hospitals and facilities. There are also
research institutions, animal control agencies and humane societies, plus many other
facilities that utilize Registered Veterinary Technicians in California. Students can gain
knowledge and hands-on experience in the following areas:

- Caring for hospitalized patients
- Clinical pathology
- Outpatient/field service
- Radiology
- Anesthesiology
- Dental prophylaxis
- Application of bandages, splints and appliances
- Surgical assisting/suturing
- Office hospital management
- Pharmacy/Pharmaceutical
- Research
- Laboratory animal care
- Animal control operations
- Animal/human bonding
- Wildlife/zoo/marine mammal medicine
- Avian medicine and care

WORK EXPERIENCE STATIONS ASSIGNED DURING THE PROGRAM:

- Small animal veterinary hospitals
- Emergency pet clinics
- Large animal practices or clinics, exotic animal practices,
or research facilities
- Animal control or humane society
INDIVIDUALIZED AND PERSONALIZED ADVISEMENT and instruction.

FULL-TIME AND PART-TIME FACULTY with over (50) years of practical industry experience.

ADVISORY COMMITTEE composed of many industry leaders in Registered Veterinary Technology enterprises.

JOB SECURITY because over 2,000 jobs in California and 10,000 jobs in the United States are waiting and available to Registered Veterinary Technicians today. The demand is now, with a rapidly increasing number of qualified technicians required for the future.

TAKE ADVANTAGE OF local, state and national placement assistance, internship programs, local, state and national organizations, stability and job security, opportunity for growth and continuing education, and local, state, national and worldwide demand for employee's.
FACILITIES

The Registered Veterinary Technology facilities are located on the Mt. SAC campus utilizing classrooms and the entire college farm.

CLASSROOM SPACE includes a complete surgery room and Registered Veterinary Technology laboratory.

LAB ANIMAL FACILITY and kennels

FARM with domestic animals for use in the Registered Veterinary Technology classes.
COURSE OFFERINGS:

Courses are offered which lead to an Associate in Science Degree in Registered Veterinary Technology. The Associate in Science Degree Program is accredited by the American Veterinary Medical Association. The Alternate Route curriculum meets the minimum requirements for qualifying to take the California state board exam for those who have worked in the veterinary field for three or more years (4,680 hours).

In addition, most of the first year courses are transferable to a four-year institution where a higher degree may be earned. For detailed requirements contact:

Jean Hoffman, R.V.T., Director
Registered Veterinary Technology Program
Mt. San Antonio College
1100 North Grand Avenue
Walnut, CA 91789
(909) 594-5611, ext. 4540 or 4544
ASSOCIATE IN SCIENCE DEGREE IN
REGISTERED VETERINARY TECHNOLOGY/ANIMAL HEALTH TECHNOLOGY

Students wishing to be admitted to the Registered Veterinary Technology Program must meet with the Director of the program at least two (2) weeks prior to the beginning of the semester in which enrollment shall begin.

Students who satisfactorily complete the requirements of this program are eligible to take the State of California Certifying Examination for Registered Veterinary Technicians.

Required courses 1st year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAG 91</td>
<td>Agricultural Calculations, or</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
</tr>
<tr>
<td>AGAN 1</td>
<td>Animal Science</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>AGAN 51</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>AGAN 94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>AGHE 54</td>
<td>Veterinary Office Procedures</td>
</tr>
<tr>
<td>AGHE 64</td>
<td>Veterinary Pharmacology</td>
</tr>
<tr>
<td>AGHE 79</td>
<td>Laboratory Animal Medicine</td>
</tr>
<tr>
<td>AGHE 84A</td>
<td>Applied Animal Health Procedures, or</td>
</tr>
<tr>
<td>AGHE 84B</td>
<td>Applied Animal Health Procedures</td>
</tr>
<tr>
<td>AGLI 95</td>
<td>Anatomy of Domestic Animals</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>AGLI 98</td>
<td>Physiology of Domestic Animals</td>
</tr>
</tbody>
</table>

**Complete application for advanced classes with Program Director.

Required courses 2nd year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGHE 60</td>
<td>Medical Nursing and Animal Care</td>
</tr>
<tr>
<td>AGHE 61</td>
<td>Surgical Nursing</td>
</tr>
<tr>
<td>AGHE 62A</td>
<td>Clinical Pathology</td>
</tr>
<tr>
<td>AGHE 62B</td>
<td>Clinical Pathology</td>
</tr>
<tr>
<td>AGHE 65</td>
<td>Veterinary Radiography</td>
</tr>
<tr>
<td>AGHE 85</td>
<td>Seminar in Animal Health Technology</td>
</tr>
</tbody>
</table>

**Complete Petition to Graduate the semester prior to anticipated completion of program.

Additional Classes:

AGHE 83A (1 unit) or 83B (2 unit) Work Experience in Animal Health—4 units total, and 6 units from the following:
Additional Classes (continued)

AGLI 12    Exotic Animal Management
AGLI 14    Swine Production
AGLI 16    Horse Production
AGLI 17    Sheep Production
AGLI 18    Horse Ranch Management
AGLI 19    Horse Hoof Care
AGLI 30    Beef Production
AGLI 81    Light Horse Management
AGPE 70    Pet Shop Management
AGPE 71    Canine Management
AGPE 72    Feline Management
AGPE 73    Tropical and Cold Water Fish Management and
AGPE 74    Reptile Management
AGPE 76    Aviculture – Cage and Aviary Birds

ALL STUDENTS MUST ALSO COMPLETE THE GENERAL EDUCATION REQUIREMENTS FOR THE DEGREE

*BIO 1—Biology 1 is required. (Should be taken before starting the Advanced Classes.)
ALTERNATE ROUTE CURRICULUM

This non-certificated program is designed specifically to meet the academic requirements of the State of California Department of Consumer Affairs, Veterinary Medical Board, Registered Veterinary Technician Examining Committee for registration test eligibility under Title 16, Section 2068.5 (Post-Secondary Education and Practical Experience). Students enrolling in this program must possess 36 months (4680 hours) of practical experience under the direct supervision of a California licensed veterinarian.

Students must meet with the Director of the Registered Veterinary Technology Program prior to registering for this program. For an appointment, call (909) 594-5611, ext. 4540 or 4544. Students who do not have the necessary work experience enroll in the Associate in Science in Registered Veterinary Technology Program as described in this handbook.

REQUIRED COURSES:

General:

Elementary Algebra (Math 51)
General Biology (BIOL 1 or 2)
Chemistry (CHEM 2A)
Anatomy of Domestic Animals (AGLI 95)
Physiology (AGLI 98)
Veterinary Office Procedures (AGHE 54)
Pharmacology (AGHE 64)

GENERAL CLASSES MUST BE COMPLETED BEFORE ENROLLING IN THE CLINICAL COURSES.

Clinical:

Medical Nursing (AGHE 60)
Surgical Nursing (AGHE 61)
Clinical Pathology (AGHE 62A & B)
Radiology ((AGHE 65)

Recommended Courses not required by the Board of Examiners:

Laboratory Animal Medicine (AGHE 79)
Seminar in Animal Health Technology (AGHE 85)
AGRI-BUSINESS

AGAB 20—MICROCOMPUTER APPLICATIONS IN AGRICULTURE  
54 hours lecture.  
Advisory Prerequisite: Eligibility for ENGL 68  
3 UNITS  
Degree Appropriate, CSU, UC  
Use of word processing, data base, spreadsheets, and graphic programs for students interested in agricultural business, nursery and landscape, equipment, and farm management.

GENERAL SUBJECTS

AGAG 1—FOOD PRODUCTION, LAND USE AND POLITICS—A GLOBAL PERSPECTIVE  
54 hours lecture.  
3 UNITS  
Degree Appropriate, CSU, UC  
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

AGAG 91—AGRICULTURAL CALCULATIONS  
54 hours lecture.  
Prerequisite: Eligibility for MATH 51.  
3 UNITS  
Degree Appropriate  
Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions, and standardizing butterfat and solids non-fat.

ANIMAL SCIENCE - GENERAL

AGAN 1—ANIMAL SCIENCE  
54 hours lecture.  
3 UNITS  
Degree Appropriate, CSU, UC  
Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

AGAN 2—ANIMAL NUTRITION  
54 hours lecture.  
3 UNITS  
Degree Appropriate, CSU  
Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

AGAN 51—ANIMAL HANDLING AND RESTRAINT  
36 hours lecture, 54 hours lab.  
3 UNITS  
Degree Appropriate, CSU  
This course will cover the methods of properly handling large and small animals and will include chemical and physical techniques of restraint.

AGAN 94—ANIMAL BREEDING  
54 hours lecture.  
3 UNITS  
Degree Appropriate  
The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.
ANIMAL HEALTH TECHNOLOGY

AGHE 54—VETERINARY OFFICE PROCEDURES 3 UNITS
54 hours lecture. Degree Appropriate

Includes veterinary hospital records, client relations, medical terminology, filling of governmental reports, legal responsibilities of animal health technicians and application of veterinary medical ethics.

AGHE 60—MEDICAL NURSING AND ANIMAL CARE 4 UNITS
54 hours lecture, 54 hours lab. Degree Appropriate, CSU
Prerequisite: Formal admittance to the Registered Veterinary Technology Program.

Animal examination for health and disease conditions in the animal hospital, including sanitation, administration of medicine, emergency treatment, therapeutic techniques, dental prophylaxis, venipuncture, electrocardiography, application of casts, splints and other appliances. Includes disease, their causes and effects, and immunology of animals.

AGHE 61—SURGICAL NURSING 4 UNITS
54 hours lecture, 54 hours lab. Degree Appropriate, CSU
Prerequisite: AGHE 60.

Surgical preparation, surgical assistance, post-operative care, administration and monitor anesthesia, dentistry, CPR, sterilization and the maintenance of a sterile environment.

AGHE 62A—CLINICAL PATHOLOGY 4 UNITS
54 hours lecture, 54 hours lab. Degree Appropriate, CSU
Prerequisite: AGLE 95

Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistries, internal parasites, immunology and serology.

AGHE 62B—CLINICAL PATHOLOGY 4 UNITS
54 hours lecture, 54 hours lab. Degree Appropriate, CSU
Prerequisite: AGLE 95

Introduces students to the expansive field of clinical pathology. Topics include bacteriology, clinical chemistry, urinalysis, external parasites and cytology.

AGHE 64—VETERINARY PHARMACOLOGY 3 UNITS
54 hours lecture. Degree Appropriate, CSU
Prerequisite: Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51A & B or AGAG 91.

Basic concepts in pharmacological chemistry. Pharmaceuticals and biologies commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.

AGHE 65—VETERINARY RADIOGRAPHY 2 UNITS
18 hours lecture, 54 hours lab. Degree Appropriate, CSU
Prerequisite: AGLE 95 and formal admittance to the Registered Veterinary Technology Program.

Basic concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; self-protection from radiation, basic technique and instrumentation. Emphasizes the
performance for the veterinary practitioner in X-ray procedures.

AGHE 79—LABORATORY ANIMAL MEDICINE AND CARE  
36 hours lecture, 54 hours labs.  
Degree Appropriate, CSU

Laboratory animal medicine, care, procedures, and rules and regulations governing laboratory animals.

AGHE 83A, AGHE 83B—WORK EXPERIENCE IN ANIMAL HEALTH  
1-3 UNITS  
Degree Appropriate

May be taken four times for credit. May be taken for Credit/No Credit only.
90 hours lab.
Prerequisite: Formal admittance and enrollment in the Registered Veterinary Technology Program. Compliance with Work Experience regulations as designated in the College Catalog.

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

AGHE 84A or B—APPLIED ANIMAL HEALTH PROCEDURES  
1 UNIT  
Degree Appropriate

May be taken two times for credit.
54 hours lab.

Field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with school domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices between Fall and Spring semesters. Students who repeat this course will improve skills by further instruction and practice.

AGHE 85—SEMINAR IN ANIMAL HEALTH TECHNOLOGY  
1 UNIT  
Degree Appropriate

Prerequisite: Completion of RVT Program or consent of instructor.

Group study course designed to help students with success on their national and state registration examinations. Course includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological and nursing concepts.

LIVESTOCK PRODUCTION

AGLI 95—ANATOMY OF DOMESTIC ANIMALS  
4 UNITS  
Degree Appropriate, CSU

54 hours lecture, 54 hours lab.

Anatomy of domestic animals including body structures and systems, comparing domestic animals commonly found in the veterinary medical industry.

AGLI 96—ANIMAL SANITATION AND DISEASE CONTROL  
3 UNITS  
Degree Appropriate, CSU

54 hours lecture

Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmission of infectious diseases, principles of sanitation and fundamentals of immunology.
AGLI 98—PHYSIOLOGY OF DOMESTIC ANIMALS  
36 hours lecture.  
Prerequisite: AGLI 95.  
Degree Appropriate

Physiology of domestic animals with emphasis on the function of internal organs and body systems. Designed for the second year Registered Veterinary Technology student in preparation for the State Board Examination.

OPTIONS

AGLI 12—EXOTIC ANIMAL MANAGEMENT  
54 hours lecture.  
Degree Appropriate

Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.

AGLI 14—SWINE PRODUCTION  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

A study of the various types of swine enterprise and the ways and means of entering them. Includes work in all major areas of swine management including handling, feeding, breeding, farrowing, butchering and marketing. Practical skills are taught by the use of college farm. Required of all animal husbandry majors.

AGLI 16—HORSE PRODUCTION  
54 hours lecture, 54 hours lab.  
Degree Appropriate, CSU, UC

Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

AGLI 17—SHEEP PRODUCTION  
36 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area. Required of all animal husbandry majors.

AGLI 18—HORSE RANCH MANAGEMENT  
54 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm lay out, estrous cycles, breeding problems and stallion care.

AGLI 19—HORSE HOOF CARE  
18 hours lecture, 54 hours lab.  
Degree Appropriate, CSU

Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.
AGLE 38—BEEF PRODUCTION
36 hours lecture, 54 hours lab.
Degree Appropriate, CSU

Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds and feedlot operations will be stressed.

AGPE 70—PET SHOP MANAGEMENT
54 hours lecture.
Degree Appropriate

A study of the pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes topics related to the organization and operation of pet shops, animal husbandry practices for species commonly sold in the industry, and sound business management skills.

AGPE 71—CANINE MANAGEMENT
36 hours lecture, 54 hours lab.
Degree Appropriate

Selection, feeding, housing, breeding and management of dogs including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling, training and grooming of dogs.

AGPE 72—FELINE MANAGEMENT
54 hours lecture.
Degree Appropriate

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and management of cats. Includes breed identification and characteristics, grooming and showing, feeding and nutrition, practical care, behavior, breeding, and housing kittens.

*AGPE 73—TROPICAL AND COLDWATER FISH MANAGEMENT
36 hours lecture.
9 week course.
Degree Appropriate

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

*AGPE 74—REPTILE MANAGEMENT
36 hours lecture.
9 week course.
Degree Appropriate

Advisory Prerequisite: Eligibility for ENGL 68.

Covers the care and keeping of reptiles, including snakes, lizards, turtles, tortoises, newts, salamanders, and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding, and raising of reptiles will be offered.

AGPE 76—AVICULTURE - CAGE AND AVIARY BIRDS
54 hours lecture.
Degree Appropriate

A study of cage and aviary birds which are marketed in the wholesale and retail pet trade including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. The course will include information on psittacines, soft bills, finches, game birds and ornamental waterfowl.
* Courses are nine weeks only.

GRADUATION REQUIREMENTS 2003/2004

Mt. San Antonio College offers two associate degree programs. The Associate in Science (A.S.) Degree is designed for students with vocational majors while the Associate in Arts (A.A.) Degree is designed for students planning to transfer and seek a baccalaureate degree. The requirements listed below are for the 2003/2004 academic year and are based upon information available at the time of catalog publication.

Both degrees require 60 units and a letter grade of “C” or better in each required course. The general education requirements are the same for both degrees except for the mathematics competency. The Associate in Arts degree requires 56 of the associate degree units to be transferable as applicable to the baccalaureate degree.

Students are advised to contact the Advising Center regarding the most current information regarding graduation and transfer requirements.

ASSOCIATE DEGREE GRADUATION REQUIREMENTS

*General Education Requirements:

The General Education Requirements listed below PLUS the specific requirements for an A.A. or A.S. listed below.

AREA A: Communication in the English Language – Two (2) courses, six (6) units. ENGL 1A or 1AH – Freshman Composition and SPCH 1A or 1AH – Public Speaking.

AREA B: The Physical Universe and Life – One (1) course, three (3) units from Physical Sciences or Life Sciences.

AREA C: Arts and Humanities – Two (2) courses, six (6) units. At least one (1) course from Arts and one (1) course from Humanities.

AREA D: Social, Political and Economic Institutions – Six (6) units. Select one (1) course from U.S. History and American Institutions and at least (1) course from Elective Courses.

AREA E: Lifelong Understanding and Self-Development – Three (3) units. Select one (1) course from the list.

Physical Well-Being Requirements: Students are required to complete at least one (1) physical education activity course from prefixes DNCE, PE-A, PE-F, PE-J, PE-L, PE-S, or PE-X with a grade of “C” or better, or “CR”.

*For a listing of courses satisfying Areas A, B, C, D and E, see General Education Requirements

Associate in Arts Degree (A.A.)

Sixty (60) associate degree appropriate units including fifty-six (56) units which are baccalaureate level (designated CSU or UC in course description) with a letter grade of “C” or higher.
Mathematics COMPETENCY (minimum of three (3) units): MATH 71 – Intermediate Algebra or MATH 71A and MATH 71B or MATH 52 and MATH 72 completing a more advanced college level mathematics course, or obtaining a satisfactory score on the Mt. San Antonio College intermediate algebra competency examination.

Associate in Science Degree (A.S)

Sixty (60) associate degree appropriate units with a grade of "C" or higher.

Mathematics COMPETENCY (minimum of three (3) units). This requirement is met by completing one of the following courses with a grade of "C" or better:

- AGAG 91 Agricultural Calculations, or
- ELMA 65B Mathematics of Electronics, or
- MATH 51 Elementary Algebra, or
- MATH 51A and MATH 51B

completing a more advanced college level mathematics course, with a grade of "C" or better, or obtaining a satisfactory score on the appropriate Mt. San Antonio College elementary algebra competency examination.

Petitioning for Graduation

All students must file a petition for graduation with the Admissions and Records office and have on file all required documents and transcripts. The deadline dates are on or about March 31st for Spring and Summer graduation and on or about October 31st for Fall graduation. Students also have the option of filing a graduation petition one semester prior to completing all coursework. Please check the Schedule of Credit Classes for further information.

Multiple Degrees

The Associate in Science degree shall be awarded to those graduates who majored in one of the occupational programs at Mt. San Antonio College. Students may be awarded one Associate in Arts degree and multiple Associate in Science degrees. Each additional Associate in Science degree requires 20 units of coursework beyond the 60 units required for the first degree, including the satisfactory completion of all the required courses of the second major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways: (1) twelve (12) units in residence and enrollment at Mt. San Antonio College in the last semester or (2) forty-five (45) units in residence, if the last semester is not at Mt. San Antonio College.

GENERAL EDUCATION REQUIREMENTS

Philosophy Statement

The general education component of the associate degree introduces students to the humanities, social sciences, natural sciences, applied sciences, and technology. It exposes students to different areas of study; demands the acquisition and use of reading, writing, and critical thinking skills at appropriate post-secondary levels; imparts a sense of our shared cultural heritage and how to function as responsible, ethical individuals in a complex society; and instills a level of intellectual curiosity and self-awareness conducive to lifelong learning and personal growth.

Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:
• Transfer to and function successfully in a baccalaureate degree granting institution;
• Enter the work force as a competent, productive citizen;
• Live a richer, more rewarding life.

Philosophy Statement (continued)

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. They provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study.

Courses that fulfill general education requirements must:

1. Require post-secondary level skills in reading, writing, computation, and critical thinking.

2. Improve students’ abilities to:
   • Communicate oral and written ideas effectively;
   • Define problems, design solutions, critically analyze results;
   • Work effectively and cooperatively with others;
   • Work independently;
   • Develop and question personal and societal values, make informed choices, and accept responsibility for one’s decisions;
   • Function as active, responsible, ethical citizens;
   • Acquire the curiosity and skills essential for lifelong learning.

3. Impart understanding, knowledge, and appreciation of:
   • Our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-western cultures;
   • The earth’s ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
   • Human social, political, and economic institutions and behavior, including their inter-relationships;
   • The psychological, social and physiological dimensions of men and women as individuals and as members of society.

Courses that fulfill general education requirements must fall into one of the content categories listed below:

A. Communication and Critical Thinking
B. Science and Math
C. Arts and Humanities
D. Social Sciences
E. Lifelong Understanding and Self-Development

Criteria for inclusion in each of the above categories are itemized below:

A. Communication and Critical Thinking

These courses emphasize both the content and form of communication. They teach students the relationship of language to logic, as well as how to analyze, criticize, and advocate ideas, to reason deductively and inductively, and to reach sound conclusions. Courses fulfilling this requirement:
• Provide understanding of the psychological and social significance of communication;
• Illustrate how communication operates in various situations;

A. Communication and Critical Thinking (continued)
• Focus on communication from the rhetorical perspective: reasoning, advocacy, organization, accuracy; the
discovery, critical evaluation, and reporting of information; reading, listening, speaking, and writing
effectively;
• Provide active participation and practice in written and oral communication.

B. Science and Mathematics

These courses impart knowledge about living and non-living systems, and mathematical concepts and quantitative
reasoning with applications. Courses fulfilling this requirement:
• Promote understanding and appreciation of the methodologies and tools of science;
• Emphasize the influence of scientific knowledge on the development of civilization;
• Impart appreciation and understanding of basic concepts, not just skills;
• Offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC
degree competency requirements.)

C. Humanities

These courses cultivate intellect, imagination, sensibility and sensitivity. They encourage students to respond
subjectively as well as objectively, and to develop a sense of the integrity of emotional and intellectual responses.
Courses fulfilling this requirement:
• Study great work of the human imagination;
• Increase awareness and appreciation of the traditional humanistic disciplines such as art, dance, drama,
literature, and music;
• Impart an understanding of the interrelationship between creative art, the humanities, and the self;
• Provide exposure to both Western and non-Western cultures;
• May include a foreign language course that contains a cultural component as opposed to a course that
focuses on skills acquisition.

D. Social Sciences

These courses explore, at the micro and macro-level, the social, political, and economic institutions that underpin
society. Courses fulfilling these requirements:
• Promote understanding and appreciation of social, political, and economic institutions;
• Probe the relationship between these institutions and human behavior;
• Examine these institutions in both their historical and contemporary context;
• Include the role of, and impact on, non-white ethnic minorities and women;
• Include both Western and non-Western settings.

E. Lifelong Understanding and Self-Development

These courses facilitate an understanding of human beings as integrated physiological, social and psychological
organisms. Courses fulfilling this requirement:
• Provide selective consideration of human behavior, sexuality, nutrition, health, stress, implications of death
and dying, and the relationship of people to the social and physical environment.
GENERAL EDUCATION REQUIREMENTS FOR 2003-2004

AREA A: Communication in the English Language (6 units):

Select two (2) courses from the following:

ENGL 1A   Freshman Composition, or
ENGL 1AH  Freshman Composition – Honors
and
SPCH 1A   Public Speaking, or
SPCH 1AH  Public Speaking – Honors

AREA B: The Physical Universe and Life (3 units):

Select one (1) course from the Physical Sciences or Life Sciences:

Physical Sciences

ASTR 5   Introduction to Astronomy
ASTR 6   Astronomical Observing
CHEM 1A  General Chemistry
CHEM 1B  General Chemistry
CHEM 2A  Fundamentals of Chemistry
CHEM 2B  Fundamentals of Chemistry
GEOG 1   Elements of Physical Geography
GEOL 1   Physical Geology
GEOL 7   Geology of California
GEOL 8   Earth Science
GEOL 8H  Earth Science – Honors
GEOL 8L  Earth Science Laboratory
GEOL 9   Environmental Geology
GEOL 10  Natural Disasters
GEOL 13  Evolution of the Earth
METO 3   Weather and the Atmospheric Environment
OCEA 10  Introduction to Oceanography
OCEA 10H Introduction to Oceanography – Honors
OCEA 10L Introduction to Oceanography – Laboratory
PHSC 7   Physical Science
PHSC 7L  Physical Science Lab
PHYS 1   Physics
PHYS 2AG General Physics
PHYS 2BG General Physics
PHYS 4A  Engineering Physics

Life Sciences

AGOR 1   Horticultural Science
ANAT 10A Introductory Human Anatomy
ANAT 10B Introductory Human Physiology
ANAT 35  Human Anatomy  
ANTH 1  Biological Anthropology  
ANTH 1H  Biological Anthropology – Honors  
ANTH 1L  Biological Anthropology Laboratory  
Biol 1  General Biology  
Biol 2  Plant and Animal Biology  
Biol 3  Ecology and Field Biology  

**Life Sciences (continued)**

Biol 4  Biology for Majors  
Biol 4H  Biology for Majors – Honors  
Biol 6  Humans and the Environment  
Biol 6L  Humans and the Environment Laboratory  
Biol 17  Neurobiology and Behavior  
Biol 20  Marine Biology  
Biol 21  Marine Biology Laboratory  
MICR 1  Principles of Microbiology  
PSYC 1B  Biological Psychology  
ZOO 1  Invertebrate Zoology  
ZOO 2  Vertebrate Zoology

**AREA C: Arts and Humanities (6 units):**

Select two (2) courses, six (6) units minimum, with at least one (1) course from the Arts and one (1) from Humanities:  

**Arts**

ARTA 1  Understanding the Visual Arts  
ARTA 1H  Understanding the Visual Arts – Honors  
ARTA 4  History of Western Art: Prehistoric Through Gothic  
ARTA 4H  History of Western Art: Prehistoric Through Gothic – Honors  
ARTA 5  History of Western Art: Renaissance Through Modern  
ARTA 5H  History of Western Art: Renaissance Through Modern – Honors  
ARTA 6  History of Modern Art  
ARTA 9  Asian Art  
ARTA 11  Arts of Africa, Oceania, and Native America  
ARTA 12  Pre-Columbian Art of the Americas  
ARTB 14  Introduction to Art Fundamentals  
ARD 15A  Drawing: Beginning  
ARD 20  Design: Two Dimensional  
ARTS 22  Design: Three Dimensional  
ARD 25A  Painting: Beginning  
ARTS 30A  Ceramics: Beginning  
ARTS 40A  Sculpture: Beginning  
DN T 20  History and Appreciation of Dance  
ID 180  History of Interior Architecture and Furnishings 1  
MUS 7  Fundamentals of Music  
MUS 11A  Music Literature Survey  
MUS 11B  Music Literature Survey  
MUS 12  History of Jazz  
MUS 13  Introduction to Music Appreciation  
MUS 13H  Introduction to Music Appreciation – Honors  
MUS 14  World Music  
MUS 15  Rock Music History and Appreciation  
PHOT 15  History of Photography  
THTR 9  Introduction to Theatre Arts  
THTR 10  History of Theatre Arts
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<tr>
<th>Course Code</th>
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<td>THTR 11</td>
<td>Principles of Acting 1</td>
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<td>Humanities</td>
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<td>CHIN 1</td>
<td>Beginning Chinese</td>
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<td>ENGL 1B</td>
<td>English – Introduction to Literary Types</td>
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<td>ENGL 1BH</td>
<td>English – Introduction to Literary Types – Honors</td>
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<td>FRCH 60</td>
<td>French Culture Through Cinema</td>
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<td>*HIST 3H</td>
<td>History of World Civilization – Honors</td>
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<td>*HIST 4H</td>
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<td>JAPN 1</td>
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<td>World Literature</td>
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<td>World Literature</td>
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<td>LIT 14</td>
<td>Introduction to Modern Poetry</td>
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<td>African American Literature</td>
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<td>Images of Women in Literature</td>
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<td>Science Fiction and Fantasy Survey</td>
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<td>LIT 36</td>
<td>Introduction to Mythology</td>
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<td>LIT 46</td>
<td>The Bible as Literature: Old Testament</td>
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<td>LIT 47</td>
<td>The Bible as Literature: New Testament</td>
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<td>Introduction to Philosophy</td>
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<td>PHIL 5H</td>
<td>Introduction to Philosophy – Honors</td>
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<td>PHIL 12</td>
<td>Ethics</td>
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SIGN 80  American Sign Language I
SPAN 1  Elementary Spanish
SPAN 1H  Elementary Spanish – Honors
SPAN 2  Elementary Spanish
SPAN 2H  Elementary Spanish – Honors
SPAN 3  Intermediate Spanish

* Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.

Humanities (continued)

SPAN 3H  Intermediate Spanish – Honors
SPAN 4  Intermediate Spanish
SPAN 11  Spanish for the Spanish Speaking
SPAN 12  Spanish for the Spanish Speaking

AREA D:

Social, Political and Economic Institutions (6 units):

U.S. History and American Institutions

Select one (1) course from the following:

HIST 1  History of the U.S.
HIST 7  History of the U.S.
HIST 7H  History of the U.S. – Honors
HIST 8  History of the U.S.
HIST 8H  History of the U.S. – Honors
HIST 30  History of the African American
HIST 31  History of the African American
HIST 36  Women in American History – Beyond the Stereotypes
HIST 40  History of the Mexican American
POLI 1  Political Science
POLI 1H  Political Science – Honors
POLI 25  Politics of the Mexican American
POLI 35  African American Politics

Elective Courses — select at least one (1) course from the following list (3 units):

AGAG 1  Food Production, Land Use and Politics – A Global Perspective
AGFR 20  Conservation of Natural Resources
ANTH 5  Principles of Cultural Anthropology
ANTH 22  General Cultural Anthropology
ANTH 30  The Native American
BUSC 1A  Principles of Economics – Macroeconomics
BUSC 1AH  Principles of Economics – Macroeconomics – Honors
BUSC 1B  Principles of Economics – Microeconomics
BUSC 1BH  Principles of Economics – Microeconomics – Honors
CHILD 1  Child, Family, and Community
CHILD 10  Child Growth and Development
CHILD 10H  Child Growth and Development – Honors
GEOG 2  Human Geography
GEOG 5  World Regional Geography

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GEOG 30  Geography of California
HIST 3  History of World Civilization
* HIST 3H  History of World Civilization – Honors
HIST 4  History of World Civilization
* HIST 4H  History of World Civilization – Honors
HIST 10  History of Asia
HIST 11  History of Asia

* Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.

Elective courses (continued)

HIST 19  History of Mexico
HIST 35  History of Africa
HIST 39  California History
JOUR 2  Mass Media and Society
POLI 2  Political Science
POLI 5  Political Science Theory
POLI 9  Introduction to International Relations
PSYC 1A  Introduction to Psychology
PSYC 1AH  Introduction to Psychology – Honors
PSYC 25  The Psychology of Women
SOC 1  Sociology
SOC 1H  Sociology – Honors
SOC 2  Sociology
SOC 2H  Sociology – Honors
SOC 4  Introduction to Gerontology
SOC 5  Introduction to Criminology
SOC 15  Child Development
SOC 20  Sociology of Ethnic Relations
SOC 20H  Sociology of Ethnic Relations – Honors
SPCH 26  Interpersonal Communication
SPCH 26H  Interpersonal Communication – Honors

AREA E:

Lifelong Understanding and Self-Development 3 units):

Select one (1) course from the following:

AD 3  Chemical Dependency
BIOL 5  Contemporary Health Issues
BIOL 13  Human Reproduction, Development and Aging
BIOL 15  Human Sexuality
BIOL 15H  Human Sexuality – Honors
COUN 5  Career/Life Planning
FCS 41  Life Management
NF 25  Essentials of Nutrition
NF 25H  Essentials of Nutrition – Honors
NF 28  Cultural and Ethnic Foods
NF 63  Basic Nutrition
PE 34  Fitness for Living
PSYC 14  Developmental Psychology
* PSYC 25  The Psychology of Women
PSYC 26  Psychology of Sexuality
PSYC 33  Psychology for Effective Living

20
Handbook
Horticulture

Contents:

Mission Statement
Program Information
Benefits of Attending Mt. SAC
Facilities
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Degrees & Certificates
Graduation Requirements
General Education Requirements

MT. SAC
Mt. San Antonio College
Agricultural Sciences Department
Revised 12/19/07
HORTICULTURE MISSION STATEMENT

PROPOSED MISSION STATEMENT

The Horticulture Team at Mt. San Antonio College is committed to providing students:

1. **Training**: that is developing employable skills.

2. **Educating**: the teaching and learning skills of critical thinking.

3. **Inspiring**: encouraging and promoting the passion for the world of horticulture.

4. **Celebrating**: the learning process and success of our students.
Welcome to Mt. San Antonio College Horticulture

The Ornamental Horticulture Program at Mt. San Antonio College is one of the largest in California. It serves Los Angeles, San Bernardino, Orange and Riverside Counties. The classes offered prepare the individual for a career in many different areas of horticulture, such as:

**Nursery Management:** The propagation, scheduling, production, and marketing of ornamental plants.

**Interior Landscaping:** The design, selection and care of plants for interior situations such as malls, office buildings, and residences.

**Retail Garden Center Sales and Management:** Selling and marketing of plants, plant products, pesticides, fertilizers and horticultural equipment.

**Landscape Maintenance:** Care and management of landscape plantings in home gardens, industrial parks, condominium complexes, schools and institutions.

**Landscape Contracting:** Installation and construction of landscape plantings, decks, fences, pools, outdoor lighting, irrigation systems, patios, walks and retaining walls.

**Turf Management:** Maintenance of golf courses, parks, athletic fields, cemeteries and other large turf areas.

**Arboriculture:** Care and culture of woody plants, including tree pruning, cabling and bracing.

**Pest Control:** Identification and control (chemical, biological and cultural) of insects, diseases and weed pests in the landscape.

**Landscape Design:** Site and client analysis, planning the outdoor environment, including the preparation of drawings and planting plans.

**Floral Design:** The design and preparation of flower arrangements for weddings, corsages, funerals and special occasions.

**Horticultural Equipment Operations:** The selection, operation and maintenance of horticultural equipment.

**Landscape Irrigation Design and Application:** The design, installation and maintenance of irrigation systems.
Benefits of Attending Mt. SAC
Ornamental Horticulture Program

Mt. San Antonio College is located in Los Angeles County, which is one of the largest dollar-volume counties utilizing horticultural and products in the world. We utilize the nearby industry for numerous field trips and job placement.

Practical approach to horticulture with hands-on experience and interaction with the horticultural industry.

Most classes are offered in block mode (meet one day per week) so individuals can maintain employment and still seek a degree or certificate. Additionally, the classes for the certificate program are scheduled so the student could obtain a certificate by attending at night.

Students propagate, produce and market horticultural products.

Horticulture and Equipment Club activities.

Work Experience Program. Earn units for on-the-job work experience.

Individualized and personalized instruction with low instructor-to-student ratio.

Full-time and part-time faculty with over (60) years of practical industry experience.

Advisory Committee composed of many industry leaders in horticultural enterprises.
Facilities

The Horticulture Unit is located on approximately seven acres of land as part of the entire school farm.

Greenhouse space totaling 12,000 square feet.

Shade house space totaling 56,000 square feet.

Three classrooms, including a landscape drafting lab, floral design lab, and plant propagation and nursery management lab.

Landscape power equipment shop.

Landscape irrigation and construction lab.

Turf plots.

Orchard.

Groundcover and herbaceous plots.

Large campus with many established ornamental plants to serve as a continual laboratory.

Master Plan to include a new Agriculture Classroom and Laboratory Building and facilities including a new propagation house.
Course Offerings

Courses are offered which lead to certificates in the following areas of specialization:

- Floral Design
- Interior Landscaping
- Landscape Design and Construction
- Landscape Equipment Technology
- Landscape Irrigation
- Landscape and Park Maintenance
- Nursery Management
- Tree Care and Maintenance
- Sports Turf Management
- Park Management

The requirements for these certificates are explained in more detail later in the handbook.

In addition, the college offers Associate in Science Degrees in:

- Floral Design
- Ornamental Horticulture
- Park and Sports Turf Management
- Equipment Technology
- Agri-Business

Most courses are transferable to a four year institution where a higher degree may be earned.

For More Information, Please Contact:

Tom Visosky, (909) 594-5611 ext. 4892, tvisosky@mtsac.edu
Brian Scott, (909) 594-5611 ext. 4539, bscott@mtsac.edu
Jennifer Garwick, (909) 594-5611 ext. 4876, jgarwick@mtsac.edu
Agricultural Sciences Department Office: (909) 594-5611, ext. 4540
MT. SAN ANTONIO COLLEGE
1100 N. Grand Avenue
Walnut, CA 91789
SOME CAREER OPTIONS

Nursery Management

Wholesale Production Nursery
Propagator
• Inventory Controller
• Field Foreperson
• Field Superintendent
• Manager
• Salesperson
• Sales Manager
• Shipping Foreperson
• Broker

Wholesale Production of Seeds
• Breeder Propagator
• Independent Grower
• Sales Manager
• Salesperson and Dealer

Retail Nursery and Garden Center
General Manager
Buyer
Division Manager
Plant Doctor (Horticulturist)
Landscape Designer
Salesperson
Floral Designer
Maintenance Person
Delivery Person (Truck Driver)

Arboretum, Botanical Garden and Horticulture Garden
Director
Superintendent of Operations
Educational Director
Curator
Librarian
Writer
Propagator
Researcher
Greenhouse Manager

Education and Research
Extension Agent (Farm Advisor)
Private Horticultural Consultant
Garden Writer
Education and Research (continued)

Ornamental Horticulture Instructors
- High School
- Community College
- University
  - Landscape Design
  - Landscape Contracting
  - Floriculture Production
  - Diseases and Pests
  - Floral Design
  - Management

Research Scientists
Research Technicians
Plant Inspector
Horticulture Therapy

Landscape Industry
- Landscape Contracting
  - Landscape Designer
  - Landscape Estimator
  - Landscape Contractor
  - Landscape Construction Crew Foreperson
  - Landscape Maintenance Foreperson
  - Landscape Gardener
  - Salesperson
  - Landscape Draftsperson

Turf Management
- Greenskeeper
- Greenskeeper, Head Foreperson
- Turf Grower

Parks Management
- Parks Service Manager
- Parks Maintenance Supervisor
- Groundskeeper

Interior Landscape
- Designer - Salesperson
- Contractor (Installer)
- Contractor, Rental and/or Maintenance

Arboriculture
- Urban Forester
- Tree Trimmer
- Tree Trimming Foreperson
- Tree Surgeon
Floriculture and Design
  Production
  • Grower
  • Production Superintendent or Foreperson
Marketing Manager
  • Propagator
  • Inventory Controller

Wholesale Commission
  Florist
  Manager
  Buyer
  Sales Manager
  Salesperson
  Route Salesperson

Retail Florist
  Store Manager
  Sales Clerk
  Head Designer
  Designer
  Wire Service Field Representative
  Panel or Show Designer
ASSOCIATE IN SCIENCE DEGREE
in
ORNAMENTAL HORTICULTURE

Required Courses:

AGAG 1  Food Production, Land Use and Politics - A Global Perspective
AGOR 1  Horticultural Science
AGOR 2  Plant Propagation/Greenhouse Management
AGOR 13 Landscape Design
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 32 Landscaping and Nursery Management
AGOR 39 Turf Grass Production and Management
AGOR 50 Soil Science and Management
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 71 Landscape Construction Fundamentals
AGOR 91 or 92 or 93 or 94  Work Experience in Nursery Operations

PLUS – Select six (6) units from the following:

AGOR 15  Interior Landscaping
AGOR 25  Floral Design I
AGOR 26  Floral Design II
AGOR 40  Sports Turf Management
AGOR 51  Tractor and Landscape Equipment Operations
AGOR 53  Small Engine Repair I
AGOR 63  Landscape Irrigation Systems Management
AGOR 72  Landscape Hardscape Applications
AGOR 75  Urban Arboriculture
CISB 15  Microcomputer Applications
Certificates in Horticulture

The following certificates are skill-oriented and derived from input of industry professionals in the horticultural fields represented. The curriculum is intended to prepare students for entry-level positions or skill enhancement in horticulture.

Interior Landscaping Certificate

AGOR 1  Horticultural Science
AGOR 13 Landscape Design
AGOR 15 Interior Landscaping
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 32 Landscaping and Nursery Management
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 64 Landscape Irrigation – Drip and Low Volume

Landscape Design and Construction Certificate

AGOR 1  Horticultural Science
AGOR 13 Landscape Design
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 50 Soil Science and Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 71 Landscape Construction Fundamentals
AGOR 72 Landscape Hardscape Applications

Landscape Equipment Technology Certificate

AGOR 1  Horticultural Science
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 52 Hydraulics
AGOR 53 Small Engine Repair I
AGOR 54 Small Engine Repair II
AGOR 55 Diesel Engine Repair
AGOR 56 Engine Diagnostics
AGOR 57 Power Train Repair
AGOR 71 Landscape Construction Fundamentals
AGOR 72 Landscape Hardscape Applications
AGOR 91 or 92 or 93 or 94 Work Experience in Nursery Operations
Landscape Irrigation Certificate

AGOR 1  Horticultural Science
AGOR 13 Landscape Design
AGOR 39 Turf Grass Production and Management
AGOR 50 Soil Science and Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 63 Landscape Irrigation Systems Management
AGOR 64 Landscape Irrigation - Drip and Low Volume
AGOR 71 Landscape Construction Fundamentals

Landscape and Park Maintenance Certificate

AGOR 1  Horticultural Science
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 39 Turf Grass Production and Management
AGOR 40 Sports Turf Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 63 Landscape Irrigation Systems Management
AGOR 71 Landscape Construction Fundamentals

Nursery Management Certificate

AGOR 1  Horticultural Science
AGOR 2  Plant Propagation/Greenhouse Management
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 32 Landscaping and Nursery Management
AGOR 39 Turf Grass Production and Management
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 64 Landscape Irrigation - Drip and Low Volume
### Tree Care and Maintenance Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
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<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
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<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>AGOR 55</td>
<td>Small Engine Repair I</td>
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<tr>
<td>AGOR 75</td>
<td>Urban Arboriculture</td>
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</tbody>
</table>

### Sports Turf Management Certificate

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<td>AGOR 62</td>
<td>Landscape Irrigation Design and Installation</td>
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<tr>
<td>AGOR 63</td>
<td>Landscape Irrigation Systems Management</td>
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</tbody>
</table>
ASSOCIATE IN SCIENCE DEGREE IN
EQUIPMENT TECHNOLOGY

Required Courses:

AGAG 1    Food Production, Land Use and Politics, A Global Perspective
AGAG 59 or 60 or 61 or 62    Work Experience in Agriculture
AGOR 51    Tractor and Landscape Equipment Operation
AGOR 52    Hydraulics
AGOR 53    Small Engine Repair I
AGOR 54    Small Engine Repair II
AGOR 55    Diesel Engine Repair
AGOR 56    Engine Diagnostics
AGOR 57    Power Train Repair
AGAG 91    Agricultural Calculations
AGOR 71    Landscape Construction Fundamentals
AGOR 72    Landscape Hardscape Applications
CISB 15    Microcomputer Applications

Landscape Equipment Technology Certificate

AGOR 1    Horticultural Science
AGOR 51    Tractor and Landscape Equipment Operation
AGOR 52    Hydraulics
AGOR 53    Small Engine Repair I
AGOR 54    Small Engine Repair II
AGOR 55    Diesel Engine Repair
AGOR 56    Engine Diagnostics
AGOR 57    Power Train Repair
AGOR 71    Landscape Construction Fundamentals
AGOR 72    Landscape Hardscape Applications
AGOR 91 or 92 or 93 or 94    Work Experience in Nursery Operations
ASSOCIATE IN SCIENCE DEGREE IN
PARK AND SPORTS TURF MANAGEMENT

Required Courses:

AGAG 1  Food Production, Land Use and Politics, A Global Perspective
AGOR 4  Park Management
AGOR 5  Park Facilities
AGOR 13 Landscape Design
AGOR 24 Integrated Pest Management
AGOR 29 Ornamental Plants - Herbaceous
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 39 Turf Grass Production and Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation Design and Installation
AGOR 63 Landscape Irrigation Systems Management
AGOR 71 Landscape Construction Fundamentals
AGOR 75 Urban Arboriculture
AGOR 91 or 92 or 93 or 94 Work Experience in Nursery Operations
CISB 15 Microcomputer Applications

Park Management Certificate

AGOR 1  Horticultural Science
AGOR 4  Park Management
AGOR 5  Park Facilities
AGOR 24 Integrated Pest Management
AGOR 30 Ornamental Plants - Trees and Woody Shrubs
AGOR 39 Turf Grass Production and Management
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 62 Landscape Irrigation - Design and Installation
AGOR 63 Landscape Irrigation Systems Management
AGOR 75 Urban Arboriculture
ASSOCIATE IN SCIENCE DEGREE IN FLORAL DESIGN

Required Courses:

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<td>AGOR 15</td>
<td>Interior Landscaping</td>
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<td>AGOR 25</td>
<td>Floral Design I</td>
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<tr>
<td>AGOR 26</td>
<td>Floral Design II</td>
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<tr>
<td>AGOR 27</td>
<td>Floral Design III</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
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<tr>
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</tr>
<tr>
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<td>Microcomputer Applications</td>
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</table>

Floral Design Certificate

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<tbody>
<tr>
<td>AGAB 20</td>
<td>Microcomputer Applications in Agriculture</td>
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<tr>
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</tbody>
</table>
AGRICULTURE: AGRI-BUSINESS

AGAB 20 – Microcomputer Applications in Agriculture 3 UNITS
54 hours lecture
Degree Appropriate, CSU, UC
Use of word processing, data base, spreadsheets, and graphic programs for students interested in agricultural business, nursery and landscape, equipment, and farm management.

AGRICULTURE: ORNAMENTAL HORTICULTURE

AGOR 1 - Horticultural Science 3 UNITS
54 hours lecture.
Degree Appropriate, CSU
The basic horticulture skills and techniques for use in gardening, nursery and landscape applications. Emphasis on propagation, cultural practices and the study of plant relationships, structure, growth and development.

AGOR 2 - Plant Propagation/Greenhouse Management 3 UNITS
36 hours lecture, 54 hours lab.
Degree Appropriate, CSU
Plant Propagation and Production practices with emphasis on florists' plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.

AGOR 4 - Park Management 3 UNITS
54 hours lecture.
Degree Appropriate
Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

AGOR 5 - Park Facilities 3 UNITS
54 hours lecture.
Degree Appropriate
Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

AGOR 13 - Landscape Design 3 UNITS
36 hours lecture, 54 hours lab.
Degree Appropriate, CSU
Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.

AGOR 15 - Interior Landscaping 3 UNITS
54 hours lecture. (May be taken for option of letter grade or Credit/No Credit)
Degree Appropriate
Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use.
AGOR 24 - Integrated Pest Management
36 hours lecture, 54 hours lab.

Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses pesticide use, safety, equipment, laws and regulations of pesticides.

AGOR 25 - Floral Design I
36 hours lecture, 54 hours lab.

Instruction and application of principles in the art of floral design as to form, styles and composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory.

AGOR 26 - Floral Design II
36 hours lecture, 54 hours lab.
Prerequisite: AGOR 25 or equivalent experience.

Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self expression, and professional design situations.

AGOR 27 - Floral Design III
36 hours lecture, 54 hours lab.
(May be taken two times for credit. May be taken for option of letter grade or Credit/No Credit.)
Prerequisite: AGOR 25 and AGOR 26.

Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized. Students who repeat this course will improve skills through further instruction and practice.

AGOR 29 - Ornamental Plants - Herbaceous
36 hours lecture, 54 hours lab.

A detailed study of herbaceous plants, including their identification, growth habits, culture, and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, ground covers and vines adapted to climates of Southern California. Plants emphasized will come from the California Association of Nurserymen and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification plant lists.

AGOR 30 - Ornamental Plants - Trees and Woody Shrubs
36 hours lecture, 54 hours lab.

Identification, Growth Habits, culture and ornamental use of landscape trees and shrubs adapted to climates of Southern California. Plants emphasized will come from the California Association of Nurserymen and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification plant lists.
AGOR 32 - Landscaping and Nursery Management
36 hours lecture, 54 hours lab.

Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides, and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising, and customer relationships; federal, state and local laws and regulations. Field trips are included.

AGOR 39 - Turf Grass Production and Management
36 hours lecture, 54 hours lab.

Introduction to cultivation, maintenance and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized.

AGOR 40 - Sports Turf Management
36 hours lecture, 54 hours lab.

Prerequisite: AGOR 39 or equivalent experience.

Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sport fields in both professional and amateur sports. Field trips are included.

AGOR 50 - Soil Science and Management
36 hours lecture, 54 hours lab.

Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

AGOR 51 - Tractor and Landscape Equipment Operations
36 hours lecture, 54 hours lab.

May be taken for option of letter grade or Credit/No Credit.

Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skid loader, skid steer loader, backhoe, lawn mowers, edgers, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.

AGOR 52 - Hydraulics
36 hours lecture, 54 hours lab.

Operation, maintenance, and repair of hydraulic systems. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions. Laboratory provides hands-on application of hydraulic systems.
AGOR 53 - Small Engine Repair I
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas powered equipment.

AGOR 54 - Small Engine Repair II
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air and water cooled engines used in landscape, industrial and agricultural applications. Repair of ride mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all terrain vehicles, and other related gas powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.

AGOR 55 - Diesel Engine Repair
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing, and repairing diesel engines.

AGOR 56 - Engine Diagnostics
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

AGOR 57 - Power Train Repair
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Service, maintenance, and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors.

AGOR 62 - Landscape Irrigation – Design and Installation
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.
AGOR 63 - Landscape Irrigation Systems Management
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.
Advisory Prerequisite: Eligibility for ENGL 68.

A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.

AGOR 64 - Landscape Irrigation – Drip and Low Volume
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

AGOR 71 - Landscape Construction Fundamentals
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.
Advisory Prerequisite: Eligibility for ENGL 68.

Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry, and surveying techniques applied to landscaping.

AGOR 72 - Landscape Hardscape Applications
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.
Prerequisite/Corequisite: AGOR 71 or equivalent experience.
Advisory Prerequisite: Eligibility for ENGL 68.

Landscape construction pertaining to all hardscape features. Course covers estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

AGOR 73 - Landscaping Laws, Contracting, and Estimating
54 hours lecture.
May be taken for option of letter grade or Credit/No Credit.

Landscape laws, contracting, and estimating as it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.
AGOR 75 - Urban Arboriculture
36 hours lecture, 54 hours lab.
May be taken for option of letter grade or Credit/No Credit.

Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

AGOR 91, 92, 93, 94 - Work Experience in Nursery Operations
1-4 UNITS
May be taken four times for credit, may be taken for Credit/No Credit only
Prerequisite: Compliance with Work Experience regulations as designated in Section III of College Catalog.

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.
GRADUATION REQUIREMENTS

Mt. San Antonio College offers two associate degree programs. The Associate in Science (A.S.) Degree is designed for students with vocational majors. The Associate in Arts (A.A.) - CSU and IGETC Degrees are designed for students planning to transfer to a 4 year university and seek a baccalaureate degree. The other Associate in Arts (A.A.) options are designed to meet the needs of students interested in graduating with an Associate level college degree. The requirements listed below are for the 2006-2007 academic year and are based upon information available at the time of catalog publication.

Both degrees require 60 units and a letter grade of "C" or better in each required course. The general education requirements are the same for both degrees except for the mathematics competency.

Students are advised to contact the Advisement, Career and Transfer Center (ACT) regarding the most current information regarding graduation and transfer requirements.

Associate Degree Graduation Requirements

General Education Requirements: The General Education Requirements listed below PLUS the specific requirements for an A.A. or A.S. listed below.

AREA A: Communication in the English Language – Two (2) courses, six (6) units. ENGL 1A or 1AH - Freshman Composition and SPCH 1A or 1AH - Public Speaking.

AREA B: The Physical Universe and Life – One (1) course, three (3) units from Physical Sciences or Life Sciences.

AREA C: Arts and Humanities – Two (2) courses, six (6) units. At least one (1) course from Arts and one (1) course from Humanities.

AREA D: Social, Political and Economic Institutions – Six (6) units. Select one (1) course from U.S. History and Political Science and at least one (1) course from elective courses.

AREA E: Lifelong Understanding and Self-Development – Three (3) units. Select one (1) course from the list.
Associate in Arts Degree (A.A.)

Unit Requirement: Sixty (60) degree-appropriate units. A letter grade of “C” or better is required for each course required for graduation.

Major Requirement: A minimum of 18 units chosen from the appropriate list of courses for the major.

Math Competency (3 units minimum):
- MATH 61 – Plane Geometry or
- MATH 71 – Intermediate Algebra or
- MATH 71B – Intermediate Algebra Second Half or
- completing a more advanced college level mathematics course, or
- obtaining a satisfactory score on the Mt. San Antonio College intermediate algebra competency examination or the Plane Geometry Competency Examination.

GPA Requirement: A Mt. San Antonio College “degree” total grade point average, and “all college” total grade point average of 2.0.

General Education Requirement: At least 24 units are required which shall include courses in each of the General Education areas, A through E. All Courses must be completed with a grade of “C” or better.

Physical Well-Being Requirement: Complete at least one of the physical education activity courses with the following prefixes: DNCE, PE-A, PE-F, PE-I, PE-L, PE-S, PE-X with a grade of “C” or better or “CR”.

Reading Competency: This requirement is met by completing one of the following with a “C” or better: READ 90 – Preparing for College Reading or AMLA 33R – American Language Advanced Reading or obtaining placement into READ 100 on initial reading placement exam or obtaining a satisfactory score on the Reading Competency Test.

Residency Requirement: The residency requirement can be met in either of two ways:
- a. 12 units in residence and enrollment in last semester, or
- b. 45 units in residence if the last semester is not at Mt. San Antonio College
Associate in Science Degree (A.S.)

Unit Requirement: Sixty [60] associate degree appropriate units with a grade of "C" or better in all courses is required for graduation.

Major Requirement: Satisfied by completing all the required courses in an approved occupational program with a minimum grade of "C" in all courses.

Mathematics Competency (minimum of three [3] units). This requirement is met by completing one of the following courses with a grade of "C" or better:

- AGAG 91 Agricultural Calculations or
- ELMA 65B Mathematics of Electronics, or
- MATH 51 Elementary Algebra, or
- MATH 51A and MATH 51B, or
- MATH 52 Algebra with Applications I or
- MATH 72 Algebra with Applications II or
- MATH 59 Fundamentals of Applied Mathematics or
- MATH 61 Plane Geometry or

completing a more advanced college level mathematics course, with a grade of "C" or better, or

obtaining a satisfactory score on the appropriate Mt. San Antonio College elementary algebra competency examination.

GPA Requirement: A Mt. San Antonio College "degree" total grade point average, and "all college" total grade point average of 2.0.

General Education Requirement: At least 24 units are required which shall include courses in each of the General Education areas, A through E. All Courses must be completed with a grade of "C" or better.

Physical Well-Being Requirement: Complete at least one of the physical education activity courses with the following prefixes: DNCE, PE-A, PE-F, PE-I, PE-L, PE-S, PE-X with a grade of "C" or better or "CR".

Reading Competency: This requirement is met by completing one of the following with a "C" or better: READ 90 - Preparing for College Reading or AMLA 33R - American Language Advanced Reading or obtaining placement into READ 100 on initial reading placement exam or obtaining a satisfactory score on the Reading Competency Test.

Residency Requirement: The residency requirement can be met in either of two ways:

c. 12 units in residence and enrollment in last semester, or

d. 45 units in residence if the last semester is not at Mt. San Antonio College
Application for Graduation

The Application for Graduation is the student’s notification to Admissions and Records that he or she has completed all requirements and would like to receive a degree. The application for Graduation form is available in the Admissions and Records office. Students should meet with a Counselor to discuss their Education plan prior to submitting the Application for Graduation.

Multiple Degrees

The Associate in Science degree shall be awarded to those graduates who majored in one of the occupational programs at Mt. San Antonio College. Students may be awarded both an Associate in Science degree and an Associate in Arts degree with the 60 units required for an Associate degree if they have met the requirements for both within the 60 units or earned credit. Each additional degree requires 18 units of course work beyond the 60 units required for the first degree(s) and must include the satisfactory completion of all the required courses in the additional major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways: (1) twelve (12) units in residence and enrollment at Mt. San Antonio College in the last semester or (2) forty five (45) units in residence, if the last semester is not at Mt. San Antonio College.

GENERAL EDUCATION REQUIREMENTS

Philosophy Statement

The general education component of the associate degree introduces students to the humanities, social sciences, natural sciences, applied sciences, and technology. It exposes students to different areas of study; demands the acquisition and use of reading, writing, and critical thinking skills at appropriate post-secondary levels; imparts a sense of our shared cultural heritage and how to function as responsible, ethical individuals in a complex society; and instills a level of intellectual curiosity and self-awareness conducive to lifelong learning and personal growth.

Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:

- transfer to and function successfully in a baccalaureate degree granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. They provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, major in a specialized field of study. Courses that fulfill general education requirements must:

1. Require post-secondary level skills in reading, writing, computation, and critical thinking.
2. Improve students’ abilities to:
   - communicate oral and written ideas effectively;
   - define problems, design solutions, critically analyze results;
   - work effectively and cooperatively with others;
   - work independently;
   - develop and question personal and societal values, make informed choices, and accept responsibility for one’s decisions;
   - function as active, responsible, ethical citizens;
   - acquire the curiosity and skills essential for lifelong learning.

3. Impart understanding, knowledge and appreciation of:
   - our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-western cultures;
   - the earth’s ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
   - human social, political, and economic institutions and behavior, including their interrelationships;
   - the psychological, social and physiological dimensions of men and women as individuals and as members of society.

Courses that fulfill general education requirements must fall into one of the content categories listed below:

A. Communication and Critical Thinking
B. Science and Math
C. Arts and Humanities
D. Social Sciences
E. Lifelong Understanding and Self-Development

Criteria for inclusion in each of the above categories are itemized below:

A. Communication and Critical Thinking
   These courses emphasize both the content and form of communication. They teach students the relationship of language to logic, as well as how to analyze, criticize, and advocate ideas, to reason deductively and inductively, and to reach sound conclusions. Courses fulfilling this requirement:
   - provide understanding of the psychological and social significance of communication;
   - illustrate how communication operates in various situations;
   - focus on communication from the rhetorical perspective: reasoning, advocacy, organization, accuracy; the discovery, critical evaluation, and reporting of information; reading, listening, speaking, and writing effectively;
   - provide active participation and practice in written and oral communication.

B. Science and Mathematics
   These courses impart knowledge about living and non-living systems, and mathematical concepts and quantitative reasoning with applications. Courses fulfilling this requirement:
   - promote understanding and appreciation of the methodologies and tools of science;
   - emphasize the influence of scientific knowledge on the development of civilization;
   - impart appreciation and understanding of basic concepts, not just skills;
   - offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC degree competency requirements.)
C. Humanities

These courses cultivate intellect, imagination, sensibility and sensitivity. They encourage students to respond subjectively as well as objectively, and to develop a sense of the integrity of emotional and intellectual responses. Courses fulfilling this requirement:

- study great work of the human imagination;
- increase awareness and appreciation of the traditional humanistic disciplines such as art, dance, drama, literature, and music;
- impart an understanding of the interrelationship between creative art, the humanities, and the self;
- provide exposure to both Western and non-Western cultures;
- may include a foreign language course that contains a cultural component as opposed to a course that focuses on skills acquisition.

D. Social Sciences

These courses explore, at the micro and macro-level, the social, political, and economic institutions that underpin society. Courses fulfilling these requirements:

- promote understanding and appreciation of social, political, and economic institutions;
- probe the relationship between these institutions and human behavior;
- examine these institutions in both their historical and contemporary context;
- include the role, and impact on, non-white ethnic minorities and women;
- incude both western and non-western settings.

E. Lifelong Understanding and Self-Development

These courses facilitate an understanding of human beings as integrated physiological, social and psychological organisms. Courses fulfilling this requirement:

- provide selective consideration of human behavior, sexuality, nutrition, health, stress, implications of death and dying, and the relationship of people to the social and physical environment.

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1

GENERAL EDUCATION REQUIREMENTS FOR 2006-2007

AREA A: Communication in the English language (6 units)
Select two (2) courses from the following:
- ENGL 1A Freshman Composition, or
- ENGL 1AH Freshman Composition – Honors
  and
- SPCH 1A Public Speaking, or
- SPCH 1AH Public Speaking – Honors

AREA B: The Physical Universe and Life (3 units)
Select one (1) course from the Physical Sciences or Life Sciences:

Physical Sciences
- ASTR 5 Introduction to Astronomy
- ASTR 5L Astronomical Observing Laboratory
- ASTR 7 Geology of the Solar System
- ASTR 8 Introduction to Stars, Galaxies, and the Universe
- CHEM 10 Chemistry for Allied Health Majors
- CHEM 20 Introductory and Organic Biochemistry
- CHEM 40 Introduction to General Chemistry
- CHEM 50 General Chemistry I
- CHEM 50H General Chemistry I – Honors
- CHEM 51 General Chemistry II
### Physical Sciences (continued)

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<td>PHYS 2BG</td>
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<td>ANAT 10B</td>
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<td>BIOL 6</td>
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<td>BIOL 21</td>
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<td>MICR 1</td>
<td>Principles of Microbiology</td>
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<td>MICR 22</td>
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<td>PSYC 1B</td>
<td>Introduction to Biological Psychology</td>
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</tbody>
</table>

### AREA C: Arts and Humanities (6 units)

Select two (2) courses, six (6) units minimum, with at least one (1) course from the Arts and one (1) from Humanities:

#### Arts

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<td>ARTB 1</td>
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Arts (continued)
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AHIS 4 History of Western Art: Prehistoric Through Gothic
AHIS 4H History of Western Art: Prehistoric Through Gothic - Honors
AHIS 5 History of Western Art: Renaissance Through Modern
AHIS 5H History of Western Art: Renaissance Through Modern - Honors
AHIS 6 History of Modern Art
AHIS 6H History of Modern Art - Honors
AHIS 9 History of Asian Art
AHIS 11 History of African, Oceanic, and Native American Art
AHIS 12 History of Pre-Columbian Art
AHIS 12H History of Pre-Columbian Art - Honors
ARTB 14 Basic Studio Arts
ARTD 15A Drawing - Beginning
ARTD 20 Design: Two Dimensional
ARTD 25A Painting - Beginning
ARTS 22 Design: Three-Dimensional
ARTS 30A Ceramics - Beginning
ARTS 40A Sculpture - Beginning
DN-T 20 History and Appreciation of Dance
ID 180 History of Interior Architecture and Furnishings 1
MUS 7 Fundamentals of Music
MUS 11A Music Literature Survey
MUS 11B Music Literature Survey
MUS 12 History of Jazz
MUS 13 Introduction to Music Appreciation
MUS 13H Introduction to Music Appreciation - Honors
MUS 14 World Music
MUS 14B American Folk Music
MUS 15 Rock Music History and Appreciation
PHOT 15 History of Photography
SPCH 4 Oral Interpretation of Literature
THTR 9 Introduction to Theater Arts
THTR 10 History of Theater Arts
THTR 11 Principles of Acting I

Humanities
CHIN 1 Elementary Chinese
CHIN 2 Continuing Elementary Chinese
CHIN 3 Intermediate Chinese
ENGL 1B English: Introduction to Literary Types
ENGL 1BH English: Introduction to Literary Types - Honors
FRCH 1 Elementary French
FRCH 2 Continuing Elementary French
FRCH 3 Intermediate French
FRCH 4 Continuing Intermediate French
FRCH 5 Advanced French
FRCH 6 Continuing Advanced French
FRCH 60 French Culture Through Cinema
GERM 1 Elementary German
GERM 2 Continuing Elementary German
GERM 3 Intermediate German
GERM 4 Intermediate German
*HIST 1 History of the US
*HIST 3 History of World Civilization
*HIST 3H History of World Civilization - Honors
*HIST 4 History of World Civilization

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.
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<td>SPAN 3</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Continuing Intermediate Spanish</td>
</tr>
</tbody>
</table>

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.
Spanish for the Spanish Speaking
Continuing Spanish for the Spanish Speaking
Spanish Literature

AREA D: Social, Political and Economic Institutions (6 units)
U.S. History and American Institutions (Select one (1) course from the following):

*HIST 1 History of the U.S.
*HIST 7 History of the U.S.
*HIST 7H History of the U.S. – Honors
*HIST 8 History of the U.S.
*HIST 8H History of the U.S. – Honors
*HIST 30 History of the African American
*HIST 31 History of the African American
*HIST 36 Women in American History – Beyond the Stereotypes
*HIST 40 History of the Mexican American
POLI 1 Political Science
POLI 1H Political Science – Honors
POLI 25 Politics of the Mexican-American
POLI 35 African-American Politics

Elective Courses – select at least one (1) course from the following list (3 units):
AGAG 1 Food Production Land Use and Politics, A Global Prospective
AGFR 20 Conservation of Natural Resources
ANTH 3 Archaeology
ANTH 5 Principles of Cultural Anthropology
ANTH 22 General Cultural Anthropology
ANTH 30 The Native American
BUSC 1A Principles of Economics - Macroeconomics
BUSC 1AH Principles of Economics - Macroeconomics - Honors
BUSC 1B Principles of Economics - Microeconomics
BUSC 1BH Principles of Economics - Microeconomics - Honors
CHILD 1 Child, Family, and Community
CHILD 10 Child Growth and Development
CHILD 10H Child Growth and Development – Honors
GEOG 2 Human Geography
GEOG 2H Human Geography - Honors
GEOG 30 Geography of California
*HIST 3 History of World Civilization
*HIST 3H History of World Civilization - Honors
*HIST 4 History of World Civilization
*HIST 4H History of World Civilization - Honors
*HIST 10 History of Asia
*HIST 11 History of Asia
*HIST 19 History of Mexico
*HIST 35 History of Africa
*HIST 39 California History
JOUR 100 Mass Media and Society
JOUR 107 Race, Gender, and Mass Media Images
POLI 2 Political Science
POLI 5 Political Science Theory
POLI 9 Introduction to International Relations
PSYC 1A Introduction to Psychology
PSYC 1AH Introduction to Psychology - Honors
SOC 1 Sociology
SOC 1H Sociology – Honors
SOC 2 Sociology
SOC 2H Sociology – Honors
Area D Electives (continued)

SOC 4  Introduction to Gerontology
SOC 5  Introduction to Criminology
SOC 14  Marriage and the Family
SOC 15  Child Development
SOC 20  Sociology of Ethnic Relations
SOC 20H  Sociology of Ethnic Relations – Honors
SPCH 7  Intercultural Communication
SPCH 26  Interpersonal Communications
SPCH 26H  Interpersonal Communication – Honors

Area E: Lifelong Understanding and Self-Development (3 units)
Select one (1) course from the following:

AD 3  Chemical Dependency: Intervention, Treatment, and Recovery
BIOL 5  Contemporary Health Issues
BIOL 13  Human Reproduction, Development, and Aging
BIOL 15  Human Sexuality
BIOL 15H  Human Sexuality - Honors
COUN 5  Career/Life Planning
FCS 41  Life Management
LEAD 55  Exploring Leadership
NF 10  Nutrition for Personal Health and Wellness
NF 25  Essentials of Nutrition
NF 25H  Essentials of Nutrition – Honors
NF 28  Cultural and Ethnic Foods
PE 34  Fitness for Living
PSYC 14  Developmental Psychology
PSYC 25  The Psychology of Women
PSYC 26  Psychology of Sexuality
PSYC 33  Psychology for Effective Living
APPENDIX D

Professor Positions
PROFESSOR, AGRICULTURE
(ANIMAL SCIENCES)

MAJOR DUTIES AND RESPONSIBILITIES:

- Teach Animal Science classes and related courses such as: Animal Science, Animal Handling and Restraint, Pet Science and Animal Production courses
- Supervision of any on-brown or off-brown related activities
- Supervision of extra-curricular student activities
- Participate in curriculum development and serve on College committees as necessary to maintain and improve the instructional program; participate in appropriate professional development activities
- Teach scheduled classes and perform related duties as assigned, including timely compliance with clerical and administrative responsibilities; comply with College and Division policies in the performance of duties
- Provide students with hands-on laboratory experiences including field trips, assisting with student advisement, tracking job placement
- Maintain scheduled office and campus hours; participate in department and Division meetings
- Instruct and assist in the growth and success of a diverse population of students through careful preparation of course materials, effective teaching methodologies and informed, critical feedback on assignments and discussions
- Active leadership role in Department/College community
- Any additional assignments may be required as part of the regular contract

REQUIRED QUALIFICATIONS:

A. One of the following awarded/considered:
   1. Any Bachelor's Degree AND two years of experience; OR
   2. Any Associate Degree AND six years of experience; OR
   3. Equivalency: Associate Degree in the discipline plus 6 years of documented experience OR Bachelor's Degree in discipline plus 2 years of documented experience OR Master's Degree in discipline
   4. California Community College-credentialed authorizing service as an instructor in the appropriate discipline

B. Commitment to the community college goals and objectives of providing quality programs and services for students with diverse abilities and interests; personal qualities to work effectively and successfully in a multicultural environment; awareness and commitment to the special needs of non-traditional students

C. Ability to communicate effectively in oral and written English

DESIRED QUALIFICATIONS:

- Broad-based understanding of career opportunities in the Animal Science industry and related fields
- Teaching experience in the Animal Science field or related field
- Master's Degree in Animal Science or Animal Industries Business Management
- Experience in developing and implementing new and innovative educational programs
- Commitment to professional growth and development and to improvement of teaching
- Experience in Business and Resource Management background
- Experience in operating large farm equipment and machinery
- Experience and enthusiasm in teaching vocational/technical students

CONDITIONS OF EMPLOYMENT:

This position is a full-time, tenure-track, two-month contract position beginning with the regular academic year 2008-2009. Placement on the salary schedule is dependent upon formal education, full-time and part-time teaching and related work experience, up to a maximum placement at step 5.

APPLICATION PROCEDURE:

Position open until filled. Applications received by 4 PM, Monday, February 25, 2008, are guaranteed to be reviewed by the Screening/Interviewing Committee. Applicants must submit all of the following to be considered for this position:

1. A Mt. San Antonio College on-line application which may be obtained from http://hsbs.mtsac.edu
2. A cover letter indicating how qualifications and experience are met, and addressing the applicant's philosophy of teaching
3. A detailed resume that summarizes educational preparation and professional experience for the position
4. College and/or university transcripts that reflect the required educational qualifications (unofficial transcripts are acceptable at the time of application)

NOTE: Transcripts issued outside the United States of America require a course-by-course analysis with an equivalency statement from a certified transcript evaluation service verifying the degree equivalency to that of an accredited institution within the USA.

5. A minimum of three current letters of recommendation signed by the authors of the letters

NOTE: Mt. San Antonio College has a new user-friendly employment site at http://hrjobs.mtsac.edu and is now accepting only on-line applications. Assistance with the on-line application process is available through the Office of Human Resources at 1100 N. Grand Avenue, Walnut, CA 91789-1399 or call us at (909) 594-5611, ext. 4225. All required information must be submitted on-line before the closing date.

PLEASE NOTE: A confirmation number will be assigned if your application packet has been successfully submitted.

It is the applicant's responsibility to ensure that all required materials are received by the filing deadline. Incomplete application packets will not be considered. All application materials must be submitted on-line, will become College property, will not be returned and will be considered for this position only. Please visit our employment website at http://hrjobs.mtsac.edu to complete and submit your application for this position.

INQUIRIES about details of the position may be obtained by contacting:

Larry Redinger, Dean
Natural Sciences
Department Chair
(909) 594-5611, ext. 4435
E-mail: lredinger@mtsac.edu
Audra Lopez
(909) 594-5611, ext. 5296
E-mail: alopez@mtsac.edu

SELECTION PROCEDURE:

A committee will evaluate applications, taking into account breadth and depth of relevant education, training, experience, skills, knowledge and abilities. Interviews may include a writing sample, board presentation, and/or performance test. The committee will recommend finalists to the President for a second interview. Travel costs for over 150 miles one way will be reimbursed up to $500. The number of vacancies is dependent on student enrollment, College resources, needs and Board of Trustees' approval. Beginning date of employment will be August 25, 2008.

SALARY AND BENEFITS:


The College contributes $9,745 toward annual premiums for medical, dental, vision, and life insurance coverage. Lifetime retirement benefits provided for eligible retirees.
*Subject to change based on Collective Bargaining Agreement.
WE RESERVE THE RIGHT TO RE-OPEN,
RE-ADVISE, DELAY OR CANCEL FILLING THIS POSITION.
VETERINARIAN / PROFESSOR, REGISTERED VETERINARY TECHNOLOGY

MAJOR DUTIES AND RESPONSIBILITIES:

- Teaching advanced Veterinary Technology courses such as Medical Nursing, Surgical Nursing, Veterinary Radiography, Clinical Pathology, Anatomy, Physiology and other related courses according to established curriculum
- Providing hands-on laboratory experiences, including field trips; assisting with student advisement, tracking, and job placement
- Participate in curriculum development, serve on College committees as necessary to maintain and improve the instructional program, and participate in appropriate professional development activities
- Teach scheduled classes and perform related duties as assigned, including timely compliance with clerical and administrative responsibilities; comply with College and Division policies in the performance of duties
- Maintain scheduled office and campus hours and participate in department/division meetings and committees
- Instruct and assist in the growth and success of a diverse population of students through careful preparation of course materials, effective teaching methods and informed critical feedback on assignments and discussions
- Providing veterinary medical care and preventative medical care for animals on the College Farm
- Evening and/or Saturday assignments may be required as part of the regular contract. Classes may be taught in block sections enabling a person to work a condensed work week

REQUIRED QUALIFICATIONS:

A. One of the following:

1. Possession of Doctor of Veterinary Medicine (D.V.M.) degree or equivalent, AND possession or eligibility for a license to practice veterinary medicine in the state of California (California license required within 1 year of date of employment), AND

2. Possession or eligibility for a valid DEA (Drug Enforcement Agency) license, AND

B. Commitment to the community college goals/objectives of providing quality programs and services for students with diverse abilities and interests; personal qualities to work effectively and sensitively in a multicultural environment; awareness and commitment to the special needs of non-traditional students

C. Ability to communicate effectively in oral and written English

DESIRED QUALIFICATIONS:

- Ability to work with large and/or small animals

CONDITIONS OF EMPLOYMENT:

This position is a full-time, tenure track, twelve-month contract position that begins regular academic year 2006-2007. Placement on the salary schedule is based on formal education, full-time and/or part-time teaching and related work experience, up to a maximum placement at step 9.

APPLICATION PROCEDURE:

Position open until filled. Applications received by Friday, June 30, 2006 are guaranteed to be reviewed by the selection committee. Any application received after the deadline is not guaranteed a review. Applicants must submit all of the following to be considered for this position:

1. A Mt. San Antonio College faculty application form which may be obtained from http://jobs.mtsac.edu or from the Office of Human Resources at (909) 294-5611, ext. 4225
2. A cover letter indicating how qualifications and experience are met, and addressing the applicant's philosophy of teaching
3. A detailed résumé that summarizes educational preparation and professional experience for the position
4. College and/or university transcripts (unofficial transcripts are acceptable at the time of application)
5. A minimum of three letters of recommendation which reflect current, relevant experience

It is the applicant's responsibility to ensure that all required materials are received by the filing deadline. All application materials will become College property, will not be returned, will not be copied and will be considered for this position only. Send all application materials to:

Office of Human Resources
Mt. San Antonio College
1100 North Grand Avenue
Walnut, CA 91788

INQUIRIES about details of the position may be obtained by contacting:

Larry Redingor  Tom Vitosky
Dean, Natural Sciences  Department Chair
(909) 294-5611, ext. 4425  (909) 294-5611, ext. 4540
E-mail: lredingor@mtsac.edu  tvitosky@mtsac.edu

SELECTION PROCEDURE:

A committee will evaluate applications, taking into account breadth and depth of relevant education, training, experience, skills, knowledge and abilities. Interviews may include a writing sample, board presentation, and/or performance test. The committee will recommend finalists to the President for a second interview. Travel costs for over 150 miles one way will be reimbursed up to $500. The number of vacancies is dependent on student enrollment, College resources, needs and Board of Trustees' approval. Beginning date of employment will be August 28, 2006.

SALARY AND BENEFITS:

Salary: Initial placement $57,780 - $92,304.

The College contributes $8,637 toward annual premiums for medical, dental, vision and life insurance coverage. Lifetime retirement benefits provided for eligible retirees.

*Subject to increase based on Collective Bargaining Agreement.

WE RESERVE THE RIGHT TO RE-OPEN, RE-ADVERTISE, DELAY OR CANCEL FILLING THIS POSITION.
The 2010 to 2011
Mt. SAC Strategic Plan

November 30, 2010

By Institutional Effectiveness Committee

INTRODUCTION

During the summer of 2010, the Institutional Effectiveness Committee (IEC) evaluated the Planning for Institutional Effectiveness (PIE) process (i.e., the program review process) and gathered information on the status of the College's 2009 to 2010 Strategic Plan. Based on these evaluations and summaries the following report represents the 2010 to 2011 Mt. SAC Strategic Plan.

The contents of this paper include a section on the history of the College, a section on PIE and integrated planning and how both are used to help create an internal and external view of events for the College and used to evaluate the College's mission and goals. The College's vision and core values are also noted and their relationship to the College's mission.

The main section is the specific strategic objectives (SOs) proposed from teams across campus based on their connection with the College goals. During the academic year 2010 to 2011, the teams will complete many activities to accomplish their suggested SOs.

MT. SAC’S HISTORY

The Mt. San Antonio Community College District (Mt. SAC) was created in December, 1945 when voters of four local high school districts approved the formation of a community college district. Initially named Eastern Los Angeles County Community College, the institution was later renamed after Mt. San Antonio, the imposing, snow-capped mountain (popularly known as Mt. Baldy), prominently visible in the distance above the campus.

The 421 acre College site was originally part of the 48,000 acre La Puente Rancho. During World War II, the facility was converted into an army hospital and later a Navy hospital. Mt. SAC opened in the Fall of 1946 with 635 students occupying a few Spanish-tiled buildings and temporary Navy barracks cluster closely below the San Jose Hills. Walnut, not yet an incorporated city, consisted of very little except dirt roads, cacti, and grasslands covered in the spring with wild mustard grass.

Quite naturally, the growth of Mt. SAC has mirrored that of the local area. From its humble beginnings with an initial enrollment of 635 students, the college now serves in a semester about 40,000 men and women from diverse backgrounds and generations. The College District boundaries encompass the communities of Baldwin Park, Bassett, Charter Oak, Covina, Diamond Bar, the southern portion of Glendora, Hacienda Heights, City of Industry, Irwindale, La Puente, La Verne,
Pomona, Rowland Heights, San Dimas, Valinda, Walnut, and West Covina.

Mt. SAC has emerged as a leader in education not only in the San Gabriel Valley, but in the state. It is the largest, single-campus community college district in California.

PLANNING FOR INSTITUTIONAL EFFECTIVENESS (PIE) AND INTEGRATED PLANNING

PIE is the model used at Mt. SAC to capture and document the planning and program review done at the unit and team levels, and to relate this planning to current and future institutional goals and objectives. This process is conducted annually by each unit of the college, and all unit participation is documented in ePIE, the College’s electronic program review system

Evaluation of the PIE process is continuous. Each year, IEC requests and receives feedback via the manager and team summaries on process clarity, utility, ease of use, effectiveness of documents and training, etc. This feedback is included in adjustments for the following year’s PIE process. The PIE process clearly exemplifies an evaluative, integrated planning effort (i.e., more than one stakeholder is required to participate in the plan in order to achieve the desired outcome similar to master plans such as the Educational Master Plan, Facilities Master Plan and the Technology Master Plan).

Integration of plans is important. There are many ways that unit planning and integrated planning is occurring across campus, including PIE, student learning outcomes, basic skills, VTEA, administrative systems planning, Banner, reviewing new processes, class schedules and enrollment, hiring, etc. Because it is vital that each team not work in a vacuum, it is important that the teams continue to integrate their planning and plans and provide documentation or evidence of their work. Unit level planning is the first step of the ladder.

PIE and integrated planning are used to help create an internal and external view of events for the College and used to evaluate the College’s mission. Based on the unit and college-level plans, data are used to identify and act upon issues and make decisions as needed. The data can be found throughout the PIE document such as in the internal and external conditions, College generated data reports, from other data sources (e.g., licensing examination results) and within the evaluation section based on the research, evaluation and assessment work done by the unit. The information collected through these multiple means provide information to drive the decision-making process. Each unit decides how their plan for that year maybe re-worked to account for these conditions and data points and work with their teams to improve their services.

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COLLEGE MISSION, VISION AND CORE VALUES

Mt. SAC is committed to integrity and a process for providing high quality education congruent with the College’s mission, created based on the student and community need that is “to welcome all students and to support them in achieving their personal, educational, and career goals in an environment of academic excellence.” It is through this mission statement that all work is derived. The College’s vision statement and core values are derived from the mission statement and also guide the College’s work.

Vision Statement:
- Mt. SAC strives to be regarded as one of the premier community colleges in the nation. We will be viewed as a leader in community college teaching, programs, and services.

- As a premier community college, we will provide access to quality, focusing on student success within a climate of integrity and respect. We will earn this reputation by consistently exceeding the expectations of our students, our staff, and our community.

Core Values
- Integrity - We treat each other honestly, ethically, and responsibly in an atmosphere of trust.
- Diversity - We respect and welcome all differences, and we foster equal participation throughout the campus community.
- Community Building - We work in responsible partnerships through open communication, caring, and a cooperative spirit.
- Student Focus - We address the needs of students and the community in our planning and actions.
- Life-Long Learning - We promote the continuing pursuit of high educational goals through equal access to excellence in both teaching and support services.
- Positive Spirit - We work harmoniously, show compassion, and take pride in our work.

The Flowcharts of College Planning are located in Appendix A. The charts provide a perspective of ongoing planning activities and resource allocation processes.
STRATEGIC OBJECTIVES

This main section represents the specific strategic objectives (SOs) proposed from teams across campus based on their connection with the College goals. All SOs are connected to and support the College's goals which in turn are connected to and support the College's mission statement. Most of these SOs are carried over from the previous year's SOs per the recommendations of each team. A few SOs are new based on the creation of new goals and the need to have a well-rounded perspective of measurable SOs. As the SOs were solicited from Teams across campus, these efforts represent a bottom-up approach to collaborative, integrated planning endeavors. During the 2010 to 2011 fiscal year, the teams will complete many activities to accomplish their suggested SOs.

**College Goal 1:** The College will secure funding that supports exemplary programs and services.

**Strategic Objectives:**

Secure Foundation funding of $1.8 Million in fiscal year 2010-2011 for scholarships, campus educational projects and capital campaign. (Mt. SAC Foundation)

Maintain an average funding success rate of no less than 60%, defined as number of grants funded divided by number of proposals submitted. (Grants Office)

**College Goal 2:** The College will prepare students for success through the development of exemplary programs and services.

**Strategic Objectives:**

By 2015, the College will improve the average student success rate for distance learning courses by 2% over the 2008 baseline. (Instruction)

65% of students enrolled in the 2010 Summer Bridge Program will complete six or more units in spring of 2011. (Student Services)

**College Goal 3:** The College will improve career/vocational training opportunities to help students maintain professional currency and achieve individual goals.

**Strategic Objectives:**

For 2010-11, the following College programs will achieve a pass rate of 90% or higher for its graduates on the national licensing and certification: Psych Tech, Emergency Medical, and Aircraft Maintenance. Respiratory Therapy, Nursing and Histotechnology. (Instruction)

During the 2010-11 academic year, the College will determine the number of programs with vocational TOP codes meeting a two-year review cycle, develop a plan to ensure all programs with vocational TOP codes are on a two-year review cycle, and based on the plan, phase in a two-year review process for all vocational TOP codes during the 2010-11 review cycle. (Instruction)
**College Goal 4:** The College will improve the quality of its partnerships with business and industry, the community, and other educational institutions.

**Strategic Objectives:**

- The President will meet with all local school superintendents at least once during 2010-2011. (President's Office)

- Increase by 25% the number of business and industry supporters and partnerships with the Mt. SAC Foundation in fiscal year 2010-11 (Mt. SAC Foundation)

- For 2008-10, the College will increase the number of secondary students requesting units via the Tech Prep Articulation Program for Secondary Schools by 10%. (Instruction) (note: year still valid as 09/10 data comes in late)

- High School Outreach will increase the student participation rate in the Connect Four program by 5% (over last year). (Student Services)

- High School Outreach will increase by 5% (over last year) the number of Connect Four students who enroll full-time in credit classes in fall. (Student Services)

**College Goal 5:** The College will utilize and support appropriate technology to enhance educational programs and services.

**Strategic Objectives:**

- During 2010 to 2011, IT will expand Banner functionality by working with campus constituents to implement new features like registration waitlist, drop for non-payment, and additional data reports. IT will offer at least 10 training sessions focusing on accessing data and reports via the portal and Argos. (Information Technology)

- In conjunction with the Technical Services and Information Technology units, implement standardized Audio Visual systems in all permanent classrooms and laboratories by June 2011. (Facilities)

- During 2010 to 2011, IT will improve customer service by implementing Help Desk software that has an easy to fill out web-based ticket system. (Information Technology)

- The College will implement a five year plan to attain the goal of equal access to audiovisual media shown on campus for all individuals beginning Academic Year 2009-2010. This includes access for students, faculty, staff and visitors. All audiovisual media purchased, developed, and/or shown on campus will be captioned by the end of Academic Year 2014-15. The responsibility to meet this college-wide objective lies with all teams. (Captioning Task Force) (note – beginning year of 09/10 is fine because start of 5-year plan)
College Goal 6: The College will provide opportunities for increased diversity and equity for all across campus.

**Strategic Objectives:**

In 2010 to 2011, HR will increase opportunities for diversity in employment by identifying at least five (5) new recruitment sources targeting underrepresented applicant groups. (Human Resources)

The ASPIRE (African American Student Success Program Inspiring Responsibility for Education) program, designed to enhance the success rates of African American students, will increase the student participation rate by 50% (over last year) by June of 2011. (Student Services)

At least 50% of Aspire program participants will have an achievable educational plan in the MAP system by June 2011. (Student Services)

By June 2011, the Student Equity Committee will provide an informational presentation to increase campus awareness about the barriers and effective strategies to assist AB 540 students in completing their educational goals. (Student Equity Committee)

By June 2011, the Student Equity Committee will present the Equity for all Report to the English and Math Departments to discuss the findings and implications on student success. (Student Equity Committee)

By June 2012, the Campus Equity and Diversity Committee will conduct at least one presentation to increase employee awareness of equity and/or diversity issues. (Campus Equity and Diversity Committee)

College Goal 7: The College will increase access for students by strengthening recruitment and opportunities for full participation in College programs and services.

**Strategic Objective:**

The number of outreach efforts related to financial aid will increase by 5% in 2010 to 2011 from the previous year. (Student Services)

College Goal 8: The College will encourage and support participation in professional development to strengthen programs and services.

**Strategic Objective:**

In 2010 to 2011, the College will create jointly with CSEA and implement 3 professional development opportunities to support more effective and valued participation on committees for classified. (Professional and Organizational Development)

Increase the number of general classified workshops offered by POD by 5% in comparison to the previous fiscal year offerings. (Professional and Organizational Development)

College Goal 9: The College will provide facilities and infrastructure that support exemplary programs and consider the health and safety of the campus community.

**Strategic Objectives:**
College Goal 9: The College will provide facilities and infrastructure that support exemplary programs and consider the health and safety of the campus community.

Remove 25% of physical barriers to accessibility on campus currently identified by the 2008 transition plan by June 2011, with focus on restroom accessibility in permanent buildings. (Facilities)

In 2010 to 2011, the College in collaboration with CSEA will develop and conduct at least one new classified employee orientation session. (Professional and Organizational Development)

In 2011 to 2012, the College will provide all new employees with the compliance programs mandatory for their employment and classification. (Risk Management and Human Resources)

By June 2012, the College will develop systematic processes for regularly updating college emergency plans (e.g., building evacuation plans) and for conducting regular emergency procedures discussions with employees. (Risk Management)

College Goal 10: The College will ensure that basic skills development is a major focus in its planning efforts.

Strategic Objectives:

By June 2011, the College will fund, as money is available, activities identified in the Basic Skills Action Plan using the available BSI funding. (Basic Skills Committee)

In 2010 to 2011, the Board of Trustees will continue their cohort discussions of the CLASS project and its reports and its implications to the College (PAC)

By 2013, all department chairs and IEC will be able to demonstrate competency in the use of the CLASS project SMART tool. (PAC)

In 2010 to 2011, the Board of Trustees will start discussion on a new cohort tracking project from the Learning Communities program. (PAC)

College Goal 11: The College will improve effectiveness and consistency of dialogue between and among departments, committees, teams and employee groups across the campus.

Strategic Objective:

The next administration of the OSS Employee Survey will allow the College to measure an increase in employee satisfaction with communications by 5% (baseline year of fall 2007 = 46%, fall 2009 = 47%). (President’s Advisory Council)

The next administration of the OSS Employee Survey will allow the College to measure an increase of 5% in participatory governance communications (average of 42.7% fall 2009 questions 109-109). (President’s Advisory Council)

In 2010 to 2011, the College, in collaboration with CSEA, will employ focus groups to solicit feedback via classified employees to identify the most effective strategies for communication. (Research and Institutional Effectiveness)

During the next evaluation of the PIE process, there will be a 10% point increase in classified employees who indicate that they were invited (i.e., asked) to be part of the PIE process (baseline year 2009 to 2010 of 44.1%).

In 2010 to 2011, there will be a 10% point increase in classified employees who indicate receiving a copy of the PIE report (baseline year 2009 to 2010 of 36.9%).
College Goal 12: The College will engage students in activities and programs designed to increase their term-to-term enrollment (i.e. persistence).

Strategic Objectives:

Student Preparation and Success Council will research and evaluate current campus efforts to address persistence. (Student Preparation and Success Council)

Student Preparation and Success Council will develop a strategic plan to connect students with campus resources and support services. (Student Preparation and Success Council)

College Goal 13: The College will improve integration of campus-wide planning activities.

Strategic Objectives:

During 2010 to 2011, the College will evaluate the effectiveness of the major planning processes on campus including how managers’ support classified employees being included in planning efforts. (PAC)

CONCLUSION

The Research and Institutional Effectiveness department will monitor the Strategic Plan accomplishments and ask IEC to contribute toward the review and evaluation of the results and planning processes. By August 30, 2011 a summary of the status of the SOs will be compiled and presented to IEC for final consideration and then to PAC for review. Based on this evaluation and review process, the next Strategic Plan will be proposed shortly thereafter to both IEC and PAC and the monitoring and evaluation cycle will continue.
Appendix A

New/Revised academic year College Goals and Strategic Objectives are developed and communicated.

Institutional Level
- IEC reviews all submitted summaries and prepares a year-end report to PAC on the progress made in meeting College goals as well as recommendations for new/revised college goals and strategic objectives.
- The next fiscal year’s Tentative Budget is developed and presented to the Board of Trustees for adoption.

Team Level
- Copies of VP/Team Leader summary reports are submitted to IEC.
- VP/Team Leaders prepare a summary, including resource requests, from their collective Unit Level reports to take to budget allocation discussions.
- If it is determined funds are available, information and a Budget Request Form is distributed to Managers/Directors/Division Deans, who prioritize requests for one-time funds based on PIE goals. Requests for budget increases go directly to their VP/Team Leader.
- Department Chairs/Deans prioritize division requests (e.g., faculty hiring) for many budget requests and require PIE documentation.
- Managers/Directors/Division Deans review submitted Status Quo Budget Sheets and forwards them to the appropriate VP/Team Leader.
- The Budget Committee reviews the College’s current financial status and makes recommendations to the President regarding availability of any new one-time and/or ongoing funds that may be available for allocation for the next fiscal year (impacted by the state budget).
- Units (departments/work units) review their ongoing Status Quo Budget Sheets from Fiscal Services for the next fiscal year for possible transfers to other accounts. Reviewed sheets are forwarded to the appropriate Manager/Director/Division Dean.

Unit Level
- Managers/Directors/Division Deans review submitted Unit PIE reports, synthesize the reports into major themes affecting their area as a whole, and completes a Manager PIE report, which is forwarded to the appropriate VP/Team Leader.
- Units (departments/work units) complete a Unit PIE report, including resource requests, and forward it to their Manager/Director/Division Dean. Any budget requests put through the budget process must have the accompanying PIE documentation of their research, evaluation and assessment efforts that lead to this request.

Planning for Institutional Effectiveness (PIE) Process
- Resource (Budget) Allocation Process

Foundational Documents
- Mission • Master & Supporting Plans • College Goals & Strategic Objectives • PIE Summaries
SAMPLE: Connection of goal, SLO, Strategic Action and Resource Requests (Prepared by IEC – see Planning for Excellence, March 2009 newsletter)

Unit Goal: prepare students to be successful in college-level Math

SLO:
Students will apply critical thinking to reason through steps in solving a math word problem.
- Assessment results showed only 50% of students met the assessment criteria.

Strategic Action: Implement the 'model X' math pedagogy to address math reasoning skills

Other data to consider:
Enrollment data
Curriculum analysis
Student success/retention in courses and program

Evaluation: Following implementation of the SA, continue to assess the SLO to determine if desired improvement occurs

Resource request:
Computers/software to support implementation of 'model X' pedagogy

Resource request:
Training for 8 faculty in use of 'model X' math pedagogy (travel/conference)
APPENDIX F

Course Syllabi
I. **Course Description:** Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

   A. **Course SLO (Student Learning Outcomes):**
      1. Course completers should be able to identify common species & breeds of livestock
      2. Course completers should be able to discuss all current agricultural industry issues

II. **Texts & References**
   A. **Required Text:** None
   B. **Recommended Text:** Introduction to Animal Science (Global, Biological, Social & Industry Perspectives) by W. Stephen Damron

III. **Attendance Policy**
   A. **Lecture:** Students are expected to be on time & attend each class as scheduled.

IV. **Grading Procedures**
   A. **Homework:** Homework must be turned in to the instructor in person not via email at the beginning of class on the due date. **Late Homework will not be accepted!**
      1. HW #1 - 50 points: Current Event (DUE April 12th)
      2. HW #2 - 25 points: Sex in the Barnyard (DUE April 19th)
      3. HW #3 - 100 points: Term Paper (DUE May 24th)
      4. HW #4 - 25 points: Student Debates (DUE May 31st)

   B. **Exams:** There will be a total of 3 Exams given for the semester. **There will be no make-up exams given without prior approval of the instructor.**
      1. April 19th - Exam 1: 200 points
      2. May 17th - Exam 2: 100 points
      3. June 14th - Final Exam: 250 points

   C. **Cheating:** Any student caught cheating will receive a failing grade and will be reported to administration for further disciplinary action.
V. **Method of Evaluation:** Total number of points achieved during the semester will determine your grade.

<table>
<thead>
<tr>
<th>Methods of Evaluation</th>
<th>Points Possible</th>
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<tbody>
<tr>
<td>Pop Quizzes</td>
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<td>F</td>
<td>509 or less</td>
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VI. **Keep Track of Your Grade:** Use the Table provided to help keep track of your grade.

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<th>Assignments</th>
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Your Letter Grade

OR

![Emojis](image)
<table>
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<tr>
<th>WEEK</th>
<th>DATE</th>
<th>COURSE OUTLINE</th>
</tr>
</thead>
</table>
| 1    | March 1st  | I. Introductions  
|      |            | II. Intro to Animal Science (Tour Facilities)  
|      |            | A. Career Opportunities in Ag  
|      |            | B. Domestication of Animals  
|      |            | C. Importance of Livestock to World & US  
|      |            | 1. Food  
|      |            | 2. Non-Food / Animal By-Products |
| 2    | March 8th  | I. Overview of the Livestock Industries  
|      |            | A. Dairy, Beef, Sheep, Goat, Swine, Poultry, Horse & Pet Industries  
|      |            | 1. History, Terminology, Breeds, Current Trends & Future  
|      |            | 2. SITBY: WORKSHEET |
| 3    | March 15th | I. Dairy Industry  
|      |            | A. Veal Industry  
|      |            | II. Beef Industry |
| 4    | March 22nd | I. Sheep Industry  
|      |            | II. Goat Industry |
| 5    | March 29th | I. Swine Industry  
|      |            | II. Poultry Industry |
| 6    | April 5th  | I. Horse Industry  
|      |            | II. Pet Industry |
| 7    | April 12th | I. REVIEW for EXAM 1 [HW#1 DUE] |
| 8    | April 19th | EXAM 1: Intro to Animal Science, All Livestock Industries (History, Terminology, Breeds, Current Trends & Future) [HW#2 DUE] |
| 9    | April 26th | I. Anatomy & Physiology  
|      |            | A. Growth Process  
|      |            | B. Skeletal System  
|      |            | C. Muscular System  
|      |            | D. Digestive System  
|      |            | E. Respiratory System  
|      |            | F. Circulatory System  
|      |            | G. Nervous System  
|      |            | H. Endocrine System  
|      |            | I. Reproductive System |
| 10   | May 3rd    | I. Reproduction & Genetics  
|      |            | A. Fertilization  
|      |            | B. Repro Organs & Their Functions  
|      |            | C. Genetic Improvement & Variation  
|      |            | D. Animal Breeding/Mating  
|      |            | II. Nutrition  
|      |            | A. Nutrients  
|      |            | B. Feeds & Feed Composition  
<p>|      |            | C. Digestive Systems |</p>
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| 11 | May 10th | I. Animal Health & Disease  
A. Major Diseases of Farm Animals  
B. Detecting Unhealthy Animals  
C. Treatment & Care  
D. Prevention & The Environment  
II. REVIEW for EXAM 2 |
| 12 | May 17th | EXAM 2: Anatomy & Physiology, Reproduction & Genetics, Nutrition and Animal Health & Disease |
| 13 | May 24th | I. Issues Affecting the Animal Industry: Term Paper [HW#3- DUE]  
A. Animal Behavior  
B. Animal Welfare (Animal Rights/Use of Animals in Research)  
C. Advances in Biotechnology  
D. Government and Environmental Concerns  
E. The Animal Food Industry  
1. Food Safety & Consumer Awareness  
2. Health & Nutritional Considerations  
3. Food Products & Processing  
4. Consumption & Marketing Strategies  
5. Trends & Future Outlook  
II. Debate Prep Day |
| 14 | May 31st | HW#4- DEBATES |
| 15 | June 7th | I. REVIEW for FINAL EXAM |
| 16 | June 14th | FINAL EXAM (COMPREHENSIVE) |

Congrats Your Done!!
Additional Helpful Information

First:

- In this class you will be finding pictures of different breeds for various species. The most helpful website which will allow you to accomplish your needs will be http://www.ansi.okstate.edu/breeds/

Second:

- In this class you will constantly be logging into your blackboard account to retrieve your weekly notes, upcoming assignments, etc. I will also post any urgent announcements onto blackboard, which will then be emailed to your account. It would be wise to become familiar with all the features blackboard has to offer.

- How to login to your blackboard account:

  Login to http://myportal.mtsac.edu using your username and password.
I. **Course Description:** The student will be introduced to the methods of proper handling for large and small animals, including chemical and physical techniques of restraint.
   A. **Course SLO (Student Learning Outcomes):**
      1. Students should be able to correctly place a halter on a horse
      2. Students should be able to demonstrate the correct restraint method for canine jugular venipuncture

II. **Texts & References:**
A. **Recommended Text:** Animal Restraint for Veterinary Professionals by Sheldon, Sonsthagen & Topel

III. **Attendance Policy:**
A. **Lecture:** If you are more than 10 minutes late to class you will NOT be able to take the daily quiz & will lose the 10 points for the day.
B. **Lab:** In addition, if you are absent from the class, you will also lose the 20 points for lab participation for the day.
   1. Class participation in both lecture & laboratory are necessary to obtain a passing grade in this class. If a student misses more than four class days they may be in danger of either failing or being dropped from this class.

IV. **Grading Procedures:**
A. **Homework:** Homework must be turned in to the instructor in person not via email at the beginning of class on the due date. Late Homework will not be accepted!
   1. HW #1- 10 points: Student Autobiography (DUE March 7th)
   2. HW #2- 110 points: Lab Notebook (DUE June 6th)
B. **Exams:** There will be a total of 4 Exams given for the semester. There will be no make-up exams given without prior approval of the instructor.
   1. March 28th---------------Midterm 1: 100 points
   2. May  2nd------------------Midterm 2: 100 points
   3. June 6th------------------Lab Practicum: 150 points
   4. June 13th-------------------Final Exam: 150 points

V. **Cheating:** Any student caught cheating will receive a failing grade and will be reported to administration for further disciplinary action.
VI. **Method of Evaluation:** Total number of points achieved during the semester will determine your grade.

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<td>F</td>
<td>539 or less</td>
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VII. **Keep Track of Your Grade:** Use the Table provided to help keep track of your grade.

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<td>Midterm #2</td>
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<td>Lab Practicum</td>
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Your **Letter Grade**
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<td>1</td>
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<td>I. Introductions</td>
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<td>II. Intro to Handling &amp; Restraint</td>
<td>II. Working with Syringes &amp; Needles</td>
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<td>III. TPR's</td>
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<td>A. External Anatomy</td>
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<td>III. TPR's</td>
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<td>A. Glass Thermometer</td>
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<td>IV. Syringes &amp; Needles</td>
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<td>2</td>
<td>March 7th</td>
<td>I. Transportation</td>
<td>I. Knot Tying</td>
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<td>II. Ropes &amp; Knots</td>
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<td>3</td>
<td>March 14th</td>
<td>I. Sheep</td>
<td>I. Moving &amp; Haltering Sheep</td>
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<td>II. TPR's</td>
<td>II. TPR's</td>
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<td>4</td>
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<td>I. Pigs</td>
<td>I. Moving Pigs</td>
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<td>II. TPR's</td>
<td>II. TPR's</td>
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<td>II. TPR’s</td>
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<td>II. TPR’s</td>
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<td>I. Reptiles: Greek &amp; Associates</td>
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<td>I. Birds: Magnolia Bird Farm</td>
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<td>13</td>
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<td>I. Horses</td>
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<td>II. Moving &amp; Haltering Cattle</td>
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<td>14</td>
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<td>15</td>
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<td>16</td>
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<td>FINAL EXAM (COMPREHENSIVE)</td>
<td>FINAL EXAM (COMPREHENSIVE)</td>
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_Congrats Your Done!!_
• In this class you will constantly be logging into your blackboard account to retrieve your weekly notes, upcoming assignments, etc. I will also post any urgent announcements onto blackboard, which will then be emailed to your account. It would be wise to become familiar with all the features blackboard has to offer.

• How to login to your blackboard account:

Login to [http://myportal.mtsac.edu](http://myportal.mtsac.edu) using your username and password.
I. **Course Description:** Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, retail product, utilization of farm-grown feeds and feedlot operation.

A. **Course SLO (Student Learning Outcomes):**
   1. Course completers should be able to identify common beef breeds
   2. Course completers will be able to give a professional quality oral presentation on the seven different segments of the beef industry

II. **Texts & References:**

A. Required Text: None
B. Recommended Text: Beef Production and Management Decisions by Taylor & Field

III. **Attendance Policy:**

A. Lecture: This class meets once a week therefore attendance is mandatory.
B. Lab Participation (Includes Field Trips & Guest Speakers): Attendance will be taken at the end of lab.

   1. 10 points will be earned for every lab attended. 10 points will be deducted for any unexcused absence.

IV. **Grading Procedures:**

A. Homework: Homework must be turned in to the instructor in person not via email at the beginning of class on the due date. **Late Homework will not be accepted!**
   1. HW #1 - 50 points: Breeding PPT & Presentation (Due September 9th)
   2. HW #2 - 30 points: Live Animal Evaluation/Written Reasons (Due September 30th)
   3. HW #3 - 100 points: Term Paper (Due December 2nd)

B. Exams: There will be a total of 3 Exams given for the semester. There will be NO make-up exams given without prior approval of the instructor.
   1. Oct 7th - Exam 1: 100 points
   2. Nov 18th - Exam 2: 100 points
   3. Dec 9th - Final Exam: 200 points

C. Cheating: Any student caught cheating will receive a failing grade and will be reported to administration for further disciplinary action.
V. **Method of Evaluation:** Total number of points achieved during the semester will determine your grade.

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VI. **Keep Track of Your Grade:** Use the Table provided to help keep track of your grade.

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| 1    | Aug. 26th| I. Introductions  
II. Handling & Restraint of Cattle  
III. Vocabulary  
   A. Beef Livestock Terminology | I. Tour of beef facilities  
   A. Look at animals & buildings |
| 2    | Sept. 2nd| I. History of Beef Production  
   A. World & US  
   B. Future of Beef & Beef Production  
II. Breeds: Identification  
   A. Bos Taurus & Bos Indicus  
   B. British, Continental & Brahman Breeds  
   C. American Breeds  
   1) Cross Breeds | I. Computer Lab  
   A. Beef Breeds  
   1) Student Presentations:  
   Each student will create a breed power point to be presented to the class the following week (HW#1-DUE 9/9) |
| 3    | Sept. 9th| I. Breed PPT Presentations Given By Students  
II. Project Cattle (Club Calves)  
   A. Halter Breaking & Training  
   B. Fitting & Showing  
   1) Grooming  
   i. Equipment | I. Project Cattle  
   A. Grooming & Fitting |
| 4    | Sept. 16th| I. Project Cattle (Club Calves)  
   A. Showmanship  
   1) Video Demo | I. Project Cattle  
   A. Showmanship  
   1) Contest |
| 5    | Sept. 23rd| I. Judging, Evaluating & Selecting Livestock  
   A. Evaluating Market Steers/Heifers  
   B. Evaluating Replacements & Breeding Stock  
   A. Students will judge pens of 4 cattle and place them from highest to lowest. Oral reasons will be given and written reasons will be graded (HW#2-DUE 9/30) |
| 6    | Sept. 30th| I. Establishing a Herd  
   A. Factors to Consider | I. Establishing a Herd  
   A. Layout facility design for given scenario |
| 7    | Oct. 7th | **EXAM 1!!**  
Includes: Terminology, Handling & Restraint Techniques, History of Beef Production, Breed Identification, Fitting & Showing Techniques, Judging/Evaluating Livestock (live class to judge) & Factors to Consider When Establishing a Herd | |
| 8    | Oct. 14th| I. Introduction to Purebred & Commercial Operations  
   A. Seven Stages of Beef Production  
   I. Seven Stages of Beef Production  
   A. Stage 1: Seedstock  
   1) semen Evaluation  
   2) Genetics, AI  
   3) Detecting Heat  
   4) Gestation  
   5) Preg Check/Evaluation of Cows & Heifers  
   6) Stages of Parturition (video) | I. Seedstock  
   A. Semen Evaluation  
   B. Artificial Insemination  
   C. Preg Checks |
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Oct. 21st</td>
<td>I. Seven Stages of Beef Production</td>
</tr>
<tr>
<td></td>
<td>A. <strong>Stage 2:</strong> Cow/Calf</td>
</tr>
<tr>
<td></td>
<td>1) Nutrition of Cow/Calf</td>
</tr>
<tr>
<td></td>
<td>i. Weaning Process</td>
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<tr>
<td></td>
<td>2) Calf Procedures (equipment)</td>
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<tr>
<td></td>
<td>i. Herd Health: De-Worming, Vaccination, Castration</td>
</tr>
<tr>
<td></td>
<td>ii. ID: Ear Tagging, Branding</td>
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<td>Oct. 28th</td>
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<tr>
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<td>A. <strong>Stage 3:</strong> Stocker/Yearling</td>
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<td>2) Transition Stage</td>
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<td>B. <strong>Stage 4:</strong> Feedlot</td>
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<td>Nov. 4th</td>
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<td>A. <strong>Stage 5:</strong> Packer</td>
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<td>2) Carcass Processing</td>
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<td>Nov. 11th</td>
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<td>A. <strong>Stage 6:</strong> Retailer</td>
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<td>1) Wholesale &amp; Retail Cuts</td>
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<td>i. Quality &amp; Yield Grading</td>
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<td>B. <strong>Stage 7:</strong> Consumer</td>
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<td>Nov. 18th</td>
<td><strong>EXAM 2!!</strong></td>
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<td></td>
<td>Includes: All Seven Stages of Beef Production</td>
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<tr>
<td>Nov. 25th</td>
<td>NO SCHOOL/HOLIDAY</td>
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<tr>
<td>Dec. 2nd</td>
<td>I. Issues in Beef Production</td>
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<td>A. Current Issues &amp; Trends</td>
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<td>B. Possible Solutions</td>
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<td><strong>Term Paper:</strong> <em>(HW#3- Due 12/2)</em></td>
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<tr>
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<td><strong>DISCUSS THE FINAL EXAM</strong></td>
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<tr>
<td>Dec. 9th</td>
<td><strong>FINAL EXAM (COMPREHENSIVE)</strong></td>
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**Congrats Your Done!!**
I. **Course Description:** The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

A. **Course SLO (Student Learning Outcomes):**
   1. Course completers should be able to recognize & discuss current topics dealing with artificial insemination, embryo manipulation and reproductive biotechnology.
   2. Course completers should be able to recognize major breeding systems for domestic animals.

II. **Texts & References:**

A. **Required Text:** None

B. **Recommended Text:** Applied Animal Reproduction by Bearden, Fuquay and Willard

III. **Attendance Policy:**

A. **Lecture:** Students are expected to be on time & attend each class as scheduled.

IV. **Grading Procedures:**

A. **Homework:** Homework must be turned in to the instructor in person not via email at the beginning of class on the due date. **Late Homework will not be accepted!**

   1. HW #1- 50 points: Genetics (DUE SEPT 8th)
   2. HW #2- 25 points: EPD's (DUE SEPT 15th)
   3. HW #3- 125 points: Student Presentations (Weeks 13&14)

   **Due Date Will Depend On What Day You Sign Up To Present
   **ALL PRESENTATIONS DUE A WEEK BEFORE YOU PRESENT!

B. **Exams:** There will be a total of 3 Exams given for the semester. **There will be NO make-up exams given without prior approval of the instructor.**

   1. September 22nd- Exam 1: 100 points
   2. November 3rd- Exam 2: 100 points
   3. December 8th- Final Exam: 200 points

C. **Cheating:** Any student caught cheating will receive a failing grade and will be reported to administration for further disciplinary action.
V. **Method of Evaluation:** Total number of points achieved during the semester will determine your grade.

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<td>89------80%</td>
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<td>539-480</td>
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<td>79------70%</td>
<td>C</td>
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<td>69------60%</td>
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<tr>
<td>59% or less</td>
<td>F</td>
<td>359 or less</td>
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VI. **Keep Track of Your Grade:** Use the Table provided to help keep track of your grade

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Your Letter Grade

*OR*

Attitude Matters
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<td>1</td>
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<td>II. Overview of Animal Breeding</td>
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<td>III. Genetics</td>
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<td>A. Cell Theory</td>
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<td>a) Gametes: Sex Cells</td>
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<td>IV. Vocabulary</td>
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<td>V. Mendelian Genetics</td>
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<td>A. Genotype &amp; Phenotype</td>
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<td>Sept 1st</td>
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<td>C. Additive &amp; Non-Additive</td>
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<td>D. Sex Linked &amp; Sex Limited Traits</td>
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<td>E. Qualitative &amp; Quantitative Traits</td>
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<td>I. Concept of Selection (Natural/Artificial)</td>
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<td>3. EPD’s: Ratios, Breeding Values</td>
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<td><strong>[HW#2 DUE]</strong></td>
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<td>I. Mating Systems for Livestock Improvement</td>
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<tr>
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<td>A. Advantages &amp; Disadvantages of All Systems</td>
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<td>B. Purebred System, Inbreeding, Linebreeding, Outcrossing</td>
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<td>Crossbreeding</td>
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<td>1. Two-Breed, Rotational, Terminal, R-T</td>
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<td>2. Hybrid-Vigor</td>
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<td><strong>EXAM #1</strong>: History of Animal Breeding, All Areas of Genetics, Principles of</td>
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<td>6</td>
<td>Sept 29th</td>
<td>I. Male Reproductive Anatomy &amp; Physiology</td>
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<tr>
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<td>A. Male Reproductive Tract</td>
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<tr>
<td></td>
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<td>B. Male Hormones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Behavioral Aspects</td>
</tr>
<tr>
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<td></td>
<td>D. Semen Evaluation</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
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<tr>
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| 7    | Oct 6th  | I. Female Reproductive Anatomy & Physiology  
|      |          |   A. Female Reproductive Tract  
|      |          |   B. Female Hormones  
|      |          |   C. Estrous Cycles and Ovulation  
|      |          |   D. Estrus Synchronization  |
| 8    | Oct 13th | I. Gestation & Parturition  
|      |          |   A. Conception and Implantation  
|      |          |   B. Fetal Development  
|      |          |   C. Pregnancy Detection/Fetal Examination  
|      |          |   D. Parturition  |
| 9    | Oct 20th | I. Environment & Care of Reproducing Animals  
|      |          |   A. Environment During Gestation & Parturition  
|      |          |   B. Treatment of New Born  
|      |          |   II. Maintenance & Care of Male Breeding Stock  |
| 10   | Oct 27th | I. Feeding Reproducing Animals  
|      |          |   A. General Needs for all Species  
|      |          |   II. Review for Exam 2  |
| 11   | Nov 3rd  | **EXAM #2**: Male/Female Anatomy & Physiology, Gestation & Parturition,  
|      |          | Environment & Care of Reproducing Animals and Feeding Reproducing Animals  |
| 12   | Nov 10th | I. Reproductive Biotechnology  
|      |          |   A. Artificial Insemination  
|      |          |     1. Advantages and Limitations  
|      |          |     2. Equipment and Facilities  
|      |          |     3. Semen Collecting, Processing, Storage and Quality  
|      |          |   B. Embryo Manipulation  
|      |          |     1. Embryo Transfer  
|      |          |       a) Process, Benefits & Limitations  
|      |          |     C. Cloning  |
| 13   | Nov 17th | **HW#4- Student Presentations**  |
| 14   | Nov 24th | **HW#4- Student Presentations**  |
| 15   | Dec 1st  | REVIEW for FINAL EXAM  |
| 16   | Dec 8th  | **FINAL EXAM (COMPREHENSIVE)**
In this class you will constantly be logging into your blackboard account to retrieve your weekly notes, upcoming assignments, etc. I will also post any urgent announcements onto blackboard, which will then be emailed to your account. It would be wise to become familiar with all the features blackboard has to offer.

How to login to your blackboard account:

Login to [http://myportal.mtsac.edu](http://myportal.mtsac.edu) using your username and password.
APPENDIX G

Degrees and Certificates Awarded
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<tr>
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<td>Liberal Arts and Sciences: Music</td>
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<tr>
<td>18950 19641</td>
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| *** Total       | 0    | 1    | 35  |
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| 21002  | 20061   |         | Photography   | Y              | 0           | 0           | 3           |
| 21005  | 20061   |         | Computer Graphics Design/Photography | Y | 0 | 2 | 3 |
| 61002  | 20061   |         | Photography   | Y              | 3           | 1           | 7           |
| 61005  | 20061   |         | Computer Graphic Design/Photography | Y | 2 | 1 | 7 |

*** Total

| 5 | 4 | 20 |
|----------------------------------------|-----------------|-------------|-------------|
| Art Department                         | 1024            | 1038        | 899         |
| Commercial and Entertainment Arts      | 0               | 1           | 35          |
| Photographic Department                | 5               | 4           | 20          |
| *** Total                              | 1029            | 1043        | 954         |
|------------------|-----------------------------------------------|--------------------------------|-----------------|-------------|-------------|
| 20909 19961      | 19963 Air Conditioning and Refrigeration      | Y 1                            | 0               | 0           |
| 20909 20021      | 20043 Air Conditioning and Refrigeration      | Y 0                            | 2               | 1           |
| 60909 19461      | 19933 Air Conditioning and Refrigeration      | Y 0                            | 1               | 0           |

**Total**

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<td>Welder: Automotive Welding, Cutting &amp; Modifi</td>
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<td>Welder: Gas Tungsten ARC Welding</td>
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<tr>
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**Total**

|                      | 70 | 55 | 95 |

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# Mt. San Antonio College

**Degrees & Certificates Awarded 3-Year Comparison Report**

*Begin Academic Year: 2009*

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- Begin Academic Year: 2006
- Degrees & Certificates Awarded

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<td>505</td>
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<td>Earth Sciences and Astronomy</td>
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<td>20061</td>
<td>Liberal Arts &amp; Sciences: Kinesiology &amp; Welln</td>
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<td>2006</td>
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<td>Physical Education</td>
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<td>2006</td>
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<td>20011</td>
<td>Athletic Trainer Aide I</td>
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<td>60804</td>
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<tr>
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</table>

*** Total

11 9 29
* Division: Physical Education Division

|--------|---------|---------|---------------|----------------|------------|------------|

* SUMMARY REPORT *

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*** Total

11 9 29
### Counseling and Guidance Department

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<td>Fine Arts &amp; Humanities</td>
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<td>113</td>
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<td>147</td>
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<td>113</td>
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<td>Fine Arts &amp; Humanities</td>
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*** Total

0           0           0
* Division: Student Services

|--------|---------|---------|---------------|-----------------|-------------|-------------|

* SUMMARY REPORT *

<table>
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</thead>
<tbody>
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<td>---</td>
</tr>
</tbody>
</table>

*** Total                       | 0           | 0           | 0           |

====================================================================================================
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**Division: Student Services**

|--------|---------|---------|---------------|-----------------|-------------|-------------|

---

***End of Report***

* Total Program Code Read: 934

* TOTAL PFE.............: 729
* TOTAL NON PFE.........: 205
---
**Mt. San Antonio College**  
*Degrees & Certificates Awarded 3-Year Comparison Report*  
*Begin Academic Year: 2006*  
*Degrees & Certificates Awarded*

**Division:** Student Services

<table>
<thead>
<tr>
<th></th>
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<td>YEAR: 2006 - 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Total AA Degrees</td>
<td>1574</td>
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<td></td>
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<tr>
<td>* Total AS Degrees</td>
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<td></td>
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<td>* Total Transfer Degrees</td>
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<td></td>
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<tr>
<td>* Total Other Degrees</td>
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<td>* Total Certificates</td>
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<td>* Total Non-PFE</td>
<td>1949</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL:</strong></td>
<td>5722</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| YEAR: 2007 - 2008 | | | | | | |
| * Total AA Degrees | 1582 | | | | | |
| * Total AS Degrees | 615 | | | | | |
| * Total Transfer Degrees | 0 | | | | | |
| * Total Other Degrees | 0 | | | | | |
| * Total Certificates | 684 | | | | | |
| * Total PFE | 387 | | | | | |
| * Total Non-PFE | 297 | | | | | |
| **TOTAL:** | 2881 | | | | | |

| YEAR: 2008 - 2009 | | | | | | |
| * Total AA Degrees | 1467 | | | | | |
| * Total AS Degrees | 645 | | | | | |
| * Total Transfer Degrees | 0 | | | | | |
| * Total Other Degrees | 0 | | | | | |
| * Total Certificates | 2994 | | | | | |
| * Total PFE | 1134 | | | | | |
| * Total Non-PFE | 1860 | | | | | |
| **TOTAL:** | 5106 | | | | | |
APPENDIX H

VTEA
Mt. San Antonio College
Perkins (VTEA) CONFERENCE AND TRAVEL FUNDING
APPLICATION

Please type or print clearly

NAME ________________________________ DEPARTMENT/DIVISION ________________________________

JOB TITLE/CLASSIFICATION ________________________________ CAMPUS EXTENSION ________________________________

___CLASSIFIED STAFF ___FULL-TIME FACULTY ___MANAGEMENT

CONFERENCE/ACTIVITY ________________________________

LOCATION ________________________________ DATE(S) ________________________________

STATEMENT – one paragraph describing how this activity will support your Perkins (VTEA) plan, i.e., curriculum development, incorporation of new technology, learning outcomes/program evaluation, etc.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Total Estimated Amount Requested from Perkins (VTEA) Funding $ ____________

ATTACHMENTS

______ BROCHURE OR PHOTOCOPY PROVIDING REGISTRATION COSTS

______ CONFERENCE AND TRAVEL REQUEST FORM, SIGNED BY YOUR IMMEDIATE MANAGER

SIGNATURE OF APPLICANT ________________________________ DATE ________________________________
CCCO Out-of-State Travel Request Form CTE Perkins IV

NO OUT-OF-STATE TRAVEL REQUEST FORM WILL BE ACCEPTED AFTER TRAVEL HAS OCCURRED

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>09-C01-034</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Name</td>
<td>Mt. San Antonio College</td>
</tr>
<tr>
<td>Traveler(s) Name</td>
<td></td>
</tr>
<tr>
<td>Traveler(s) Position(s)</td>
<td></td>
</tr>
<tr>
<td>Conference Title</td>
<td></td>
</tr>
<tr>
<td>Conference Location</td>
<td></td>
</tr>
<tr>
<td>Travel Dates</td>
<td></td>
</tr>
</tbody>
</table>
| Travel pertains to (check one) and is included in the respective budget summary. | [X] List TOP Code(s) 0112
| Describe the purpose for attending the conference. | Across Vocational Programs |
| Explain how this attendance will contribute to the success of the program/project. | |

Approximate costs including:
- Incidental, parking, tolls, etc.
- Registration
- Meals (not covered by the conference, at district rates)
- Airfare
- Car Rental
- Lodging

**ESTIMATED TOTAL**

This information should be e-mailed to your Project Monitor who will review it and fax the response back to you. Keep a copy of the approved document; we will also keep a copy for our audit files.

Please make sure to gather and keep information such as the agenda, handouts from sessions of the conference/professional development session and whatever other information you feel adequately records the purpose of the conference. This documentation should be kept with the district’s CTE Perkins IV audit file.

**CCCO APPROVAL:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Title</th>
<th>Date:</th>
</tr>
</thead>
</table>

Signature:

Rev. 11-02
CONFERENCE AND TRAVEL REQUEST/EXPENSE CLAIM FORM

Name: ___________________________________________ Dept: ________________
Home Address: ___________________________________________
Conference Name: _______________________________________
Conference Location: ____________________________________
Dates: _________________________________________________

[ ] Classified [ ] Full-Time Faculty [ ] Will Staff Development funds be used? [ ] Yes [ ] No
[ ] Part-Time Faculty [ ] Management

A

CONFERENCE AND TRAVEL REQUEST

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<th>Description</th>
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<th>Estimated Cost:</th>
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<tr>
<td>Automobile Rental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Automobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals</td>
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</tr>
<tr>
<td>Registration</td>
<td></td>
<td>$0.00</td>
</tr>
<tr>
<td>District Vehicle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station Wagon*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of District Credit Card</td>
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<td></td>
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</tbody>
</table>
*Requires separate request not to be included in estimate.

[ ] Other Itemize:

Account No.: ___________________________ Estimated Cost: _______________________
Account No.: ___________________________ Estimated Cost: _______________________
Account No.: ___________________________ Estimated Cost: _______________________

I recommend approval of the above request. To the best of my knowledge, expenses will not exceed available funds.

Staff Development / Date (Staff Development Funds ONLY)______________________
Immediate Manager’s Approval / Date ___________________________

Approved: __________________________________________________________________

Superintendent/President or Designee / Date (Out-of-State ONLY) ___________________
Date of Board Approval (if required): ______________

B

CONFERENCE AND TRAVEL EXPENSE CLAIM

Commercial Air *(Must submit AIRLINE RECEIPT)*
From: ___________________________ To: ___________________________ and Return = ____________
Total Airfare $0.00

AUTOMOBILE RENTAL *(Must submit RECEIPT)*

PRIVATE AUTOMOBILE
From: ___________________________ To: ___________________________ Miles @ 55¢/mile
& Return: ___________________________ Total Mileage $0.00
Garage or Parking Dates: ___________ to ___________ Days @ ____________/day Total Parking $0.00

Taxi / Bus fares (list separately)
Date: ___________________________ From: ___________________________ To: ___________________________ Rate: ____________/day
Date: ___________________________ From: ___________________________ To: ___________________________ Rate: ____________/day
Total Taxi/Bus

HOUSING *(Must submit ITEMIZED HOTEL BILL)*
Date: ___________________________ Hotel: ___________________________ City: ___________________________ Rate: ____________/night
Date: ___________________________ Hotel: ___________________________ City: ___________________________ Rate: ____________/night
Date: ___________________________ Hotel: ___________________________ City: ___________________________ Rate: ____________/night
Total Housing $0.00

MEALS
Date: ___________________________ Breakfast: ___________________________ Lunch: ___________________________ Dinner: ___________________________
Date: ___________________________ Breakfast: ___________________________ Lunch: ___________________________ Dinner: ___________________________
Date: ___________________________ Breakfast: ___________________________ Lunch: ___________________________ Dinner: ___________________________

Claims over $30.00/day require itemized receipts

REGISTRATION *(Must submit RECEIPT)*
Total Registration $0.00

OTHER *(Please itemize)*

Total Other

This is to certify that the above expenses were incurred without personal profit:

Claimant's Signature: ___________________________ Date: ___________________________ Mgr. Approval Date: ___________________________

(Staff Development Funds ONLY)
Staff Development Management Signature: ___________________________ Date: ___________________________

Revised 02/09/09

GRAND TOTAL $0.00
1. Mt. San Antonio College and

2. High School - Regional Occupational Program (ROP) - Adult Education Course:
   Authorized Instructors (Maximum: PLEASE PRINT)
   1) 
   2) 
   3) 

Location

3. Mt. San Antonio College agrees to provide students qualified under the terms of this Articulation Agreement:

<table>
<thead>
<tr>
<th>AG Earth</th>
<th>Course Equivalency</th>
<th>College Credit by Exam</th>
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</thead>
<tbody>
<tr>
<td>High School - ROP - Adult Ed Course Name</td>
<td>10 Credits</td>
<td>AGAN 1 Animal Science</td>
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<tr>
<td>Veterinary</td>
<td>10 Credits</td>
<td>Mt. SAC - Course Title</td>
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<tr>
<td>High School - ROP - Adult Ed Course Name</td>
<td>Credits</td>
<td>Mt. SAC - Course Title</td>
</tr>
<tr>
<td>High School - ROP - Adult Ed Course Name</td>
<td>Credits</td>
<td>Mt. SAC - Course Title</td>
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<td>High School - ROP - Adult Ed Course Name</td>
<td>Credits</td>
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<tr>
<td>High School - ROP - Adult Ed Course Name</td>
<td>Credits</td>
<td>Mt. SAC - Course Title</td>
</tr>
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Additional Requirements or Notes:

With instructor's recommendation, and final grade of "B" (80%) or better in the secondary course, students may request Articulation credit. Secondary course exams will meet the Articulation exam requirement. The final grade assigned by the secondary program will be used as the college grade.

4. It is the responsibility of the Instructor(s) named to inform students of this Articulation process and all student requests for Articulation must be submitted at the completion of all courses identified on this document.

This agreement is valid for the school year 2010-11 only.

Any curriculum changes at either institution involving the courses named in this document shall require this agreement to be renegotiated.

5. To be completed by Mt. San Antonio College

<table>
<thead>
<tr>
<th>College Professor</th>
<th>Date</th>
</tr>
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<tbody>
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<th>Division Dean</th>
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<th>Mt. SAC Articulation Officer</th>
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6. To be completed by the High School District - Regional Occupational Program (ROP) - Adult Education department

<table>
<thead>
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<th>Instructor</th>
<th>Date</th>
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<table>
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<tr>
<th>Authorized Administrator</th>
<th>Date</th>
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<td>(Please sign with red or blue ink)</td>
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</table>

Version 3.0 Revised 2009
2 + 2 Articulation Agreement

1.) Mt. San Antonio College and

2.) High School - Regional Occupational Program (ROP) - Adult Education Course
   
   Authorized Instructors (3 Maximum - PLEASE PRINT)

   |
   1) ________________________________
   2) ________________________________
   3) ________________________________

   Location ________________________________

3.) Mt. San Antonio College agrees to provide students qualified under the terms of this Articulation Agreement:

   - [ ] Program Breakdown
   - [ ] Course Equivalency
   - [ ] College Credit Exam

<table>
<thead>
<tr>
<th>High School - ROP - Adult Ed Course Name</th>
<th>Credits</th>
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<td>ACLI 16 - Horse Production</td>
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   Additional Requirements or Notes:
   With instructor’s recommendation, an final grade of "C" (70%) or better in the secondary course, students may request Articulation credit. Secondary course exams will meet the Articulation exam requirement. The final grade assigned by the secondary program will be used as the college grade.

4.) It is the responsibility of the instructor(s) named to inform students of this Articulation process and all student requests for Articulation must be submitted at the completion of all courses identified on this document.

This agreement is valid for the school year 2010-11 only.

Any curriculum changes at either institution involving the courses named in this document shall require this agreement to be renegotiated.

6.) To be completed by Mt. San Antonio College

   College Professor ________________________________ Date ________________________________
   (Please sign with red or blue ink)

   Division Dean ________________________________ Date ________________________________
   (Please sign with red or blue ink)

   Mt. SAC Articulation Officer ________________________________ Date ________________________________
   (Please sign with red or blue ink)

   6.) To be completed by the High School District - Regional Occupational Program (ROP) - Adult Education department

   Instructor ________________________________ Date ________________________________
   (Please sign with red or blue ink)

   Authorized Administrator ________________________________ Date ________________________________
   (Please sign with red or blue ink)
1.) Mt. San Antonio College and

2.) High School - Regional Occupational Program (ROP) - Adult Education Course:
   Authorized Instructors (3 Maximum- PLEASE PRINT)
   1)
   2)
   3)

3.) Mt. San Antonio College agrees to provide students qualified under the terms of this Articulation Agreement:
   - Course Equivalency
   - College Credit by Exam

<table>
<thead>
<tr>
<th>High School - ROP - Adult Ed Course Name</th>
<th>Credits</th>
<th>Mt. SAC - Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Additional Requirements or Notes:

With instructor's recommendation, an final grade of "C" (70%) or better in the secondary course, students may request Articulation credit. Secondary course exams will meet the Articulation exam requirement. The final grade assigned by the secondary program will be used as the college grade.

4.) It is the responsibility of the Instructor(s) named to inform students of the Articulation process and all student requests for Articulation must be submitted at the completion of all courses identified on this document.

This agreement is valid for the school year 2010-11 only.

Any curriculum changes at either institution involving the courses named in this document shall require this agreement to be renegotiated.

5.) To be completed by Mt. San Antonio College:

   College Professor
   Department Chair
   Division Dean
   Mt. SAC Articulation Officer
   (Please sign with red or blue ink)
   Date
   Date
   Date
   Date

6.) To be completed by the High School District - Regional Occupational Program (ROP) - Adult Education department:

   Instructor
   Authorized Administrator
   (Please sign with red or blue ink)
   Date
   Date

Version 1.0 Revised 2009
1.) Mt. San Antonio College and

2.) High School - Regional Occupational Program (ROP) - Adult Education Course:

   - Authorized Instructors (3 Maximum--PLEASE PRINT)
     1) __________________________
     2) __________________________
     3) __________________________

3.) Mt. San Antonio College agrees to provide students qualified under the terms of this Articulation Agreement:

   - ☐ Course Equivalency
   - ☐ College Credit by Exam

<table>
<thead>
<tr>
<th>High School - ROP - Adult Ed Course Name</th>
<th>Credits</th>
<th>Mt. SAC - Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 13 Landscape Design</td>
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<td></td>
</tr>
</tbody>
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Additional Requirements or Notes:

With instructor's recommendation, an final grade of "C" (70%) or better in the secondary course, students may request Articulation credit. Secondary course exams will meet the Articulation exam requirement. The final grade assigned by the secondary program will be used as the college grade.

4.) It is the responsibility of the Instructor(s) named to inform students of this Articulation process and all student requests for Articulation must be submitted at the completion of all courses identified on this document.

This agreement is valid for the school year 2010-11 only.

Any curriculum changes at either institution involving the courses named in this document shall require this agreement to be renegotiated.

5.) To be completed by Mt. San Antonio College

   - College Professor __________________________ (Please sign with red or blue ink) Date
   - Department Chair __________________________ (Please sign with red or blue ink) Date
   - Division Dean __________________________ (Please sign with red or blue ink) Date
   - Mt. SAC Articulation Officer __________________________ (Please sign with red or blue ink) Date

6.) To be completed by the High School District - Regional Occupational Program (ROP) - Adult Education department

   - Instructor __________________________ (Please sign with red or blue ink) Date
   - Authorized Administrator __________________________ (Please sign with red or blue ink) Date

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MT. SAN ANTONIO COLLEGE
Department of Agricultural Sciences
Student scholarship resource

Written and compiled April 2011
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HORTICULTURE
California Association of Nurseries and Garden Centers
Garden Writers Association Foundation
Perennial Plant Association
California Seed Association / Ginny Paton Scholarship Foundation
Diablo Women's Garden Club Scholarship program
Western Reserve Herb Society
California Horticultural Society
Mary Lou Heard Foundation Horticultural Scholarship

ANIMAL & LIVESTOCK SCIENCE
Pacific Egg & Poultry Association
National Cattlemen's Foundation
Andy Peck Livestock Scholarship
West Coast Equine Foundation
California Cattlemen's Association Scholarship program
Friends of the California State Fair Scholarship program
San Dimas Western Days Rodeo Scholarship
The Race for Education
United States Pony Clubs Scholarship program
Appaloosa Youth Foundation
Arabian Horse Foundation

VETERINARY TECHNOLOGY
Oxbow Animal Health Scholarship program
Lesbian and Gay Veterinary Medical Association

LANDSCAPE
California Landscape Contractors Association / LEAF Scholarship program
Professional Grounds Management Society

INTEGRATED PEST MANAGEMENT
APHIS PPQ William F Helms Student Scholarship
Pesticide Applicators Professional Association
California Weed Science Society

TURF
Turf and Ornamental Communicator's Association
Golf Course Superintendents Association of America
GCSAA / Environmental Institute for Golf Student Essay Contest
Golf Course Superintendents Association of Southern California
Sports Turf Managers Association / SAFE Scholarship program

ARBORICULTURE
Sara Schallenberger Brown GCA National Parks Conservation Scholarship
Street Tree Seminar, Inc.
Tree Research and Education Endowment Fund
FLORICULTURE & FLORAL DESIGN
American Floral Endowment
AFE Internships

Scholarships offered through Mt. SAC
Some considerations before applying for an outside scholarship

**NB: ALL STUDENTS SEEKING FINANCIAL AID AND/OR APPLYING FOR A SCHOLARSHIP SHOULD FIRST FILE A FREE APPLICATION FOR FEDERAL STUDENT AID (FAFSA).**

Applications are available on-line, and may be submitted electronically or downloaded as a PDF and mailed as a paper application.

Upon request, a paper application may be mailed to you.

HORTICULTURE

CALIFORNIA ASSOCIATION OF NURSERIES AND GARDEN CENTERS
The California Association of Nurseries and Garden Centers Endowment for Research and Scholarship (CANERS) distributes a number of annual awards (usually a minimum of $2,500) to high school students and college students currently residing in California, enrolled in a horticulture program, and interested in a career as a nursery professional or in a related field.

Eligible students must be currently carrying a minimum of 6 units while enrolled in a horticulture program. Students majoring in landscape architecture, dairy science, enology, floral design, golf and sports turf management, animal science, and landscape contracting are not eligible.

Application materials must include current official transcripts from the past five years of enrollment, two letters of recommendation (preferably at least one from an instructor in horticulture), and short written statements about the applicant's educational and professional goals, and interest and experience in horticulture. An unofficial, computer-generated transcript of classes for the current term must be included and signed by a departmental instructor.

As there is no minimum GPA requirement, work experience, involvement in horticulture-related extracurricular activities, involvement in the industry, and volunteer work and community service are weighted heavily in the selection process.

The deadline for receipt of application materials varies each year, and interested students should consult the CANERS scholarship website for an application and application deadline.

Mail application material to

California Association of Nurseries and Garden Centers
1521 I St
Sacramento CA 95814

Contact information
phone 916.928.3900
fax 916.567.0505

Website
www.cangc.org

GARDEN WRITERS ASSOCIATION FOUNDATION
The Garden Writers Association Foundation awards the annual Kathleen Fisher Memorial Scholarship to part- and full-time post-secondary students, including those attending a community college, enrolled in a horticulture, plant science, or journalism program, and with a documented interest in garden communications.

Eligible students must have a minimum 3.0 GPA and must have a history of involvement in campus activities (horticulture-related) and community service.

Application materials must include a minimum of two writing or photography samples, preferably previously published, and a supporting letter from an academic advisor, instructor, or department head. Transcripts must be included. The deadline for receipt of all materials is December 10.
Award is conditional upon receipt of a written report from the award recipient regarding the intended use of the scholarship. All monies will be granted directly to the applicant’s school for use in the following spring term.

Mail application materials to

    Scholarship Chair
    Garden Writers Association Foundation
    10210 Leatherleaf Ct
    Manassas VA 20111

Contact information
phone: 703.257.1032
fax: 703.257.0213
e-mail: info@gardenwriters.org

Website

PERENNIAL PLANT ASSOCIATION
The Perennial Plant Association (PPA) offers five scholarships with complimentary registration at and lodging during the Association’s annual Perennial Plant Symposium to horticulture students interested in a career in perennial plants. Each award is worth $1,000, and prior recipients of the Perennial Plant Association scholarships are not eligible.

Eligible students must have a 3.0 GPA and must have at least one term remaining following the current spring term.

Award is conditional upon the student’s attendance at the current Perennial Plant Symposium (three days total), and an additional day of tours or workshops. In addition, the student must provide a brief summary of their experience at the Symposium to be published in the PPA newsletter.

Supporting materials include a statement of purpose explaining the student’s interest and experience in working with perennial plants, the student’s career goals, and an explanation as to how the student intends to use their scholarships towards pursuing these goals. The application must also include three letters of recommendation, one from an academic advisor, and one from a member of the PPA. Consult the PPA office using the contact information below for the name of a PPA member in your area. The deadline for receipt of all materials is March 1.

Mail application materials to

    Dr. Steven Still, Executive Director
    Perennial Plant Association
    3383 Schirzheimer Rd
    Hilliard OH 43026

Contact information
phone: 614.771 8431
e-mail: ppa@perennialplant.org

Website
www.perennialplant.org
CALIFORNIA SEED ASSOCIATION / GINNY PATIN SCHOLARSHIP FOUNDATION

With the support of the California Seed Association (CSA) the Ginny Patin Scholarship Foundation offers several annual scholarships to California residents enrolled in an undergraduate or graduate program offering coursework in plant science, soil science, and botany who have a special interest in the seed industry.

Numbers of awards and their value vary depending on the year and the suitability of applicants. In 2011, the foundation offered three $2,500 scholarships to qualified applicants.

Eligible students must be enrolled full-time. Incoming freshman applying for an award must agree to complete three semesters of coursework with a major emphasis in plant science, and eligible college sophomores, juniors, and seniors must have completed three semesters of coursework with a major emphasis in plant science prior to submitting their application. Membership in the CSA is highly recommended, but not required, of applicants.

Selection criteria include financial need, a documented interest in the seed industry and a stated intention to pursue a career in the industry, work experience in agriculture or a field related to plant science or seed production, academic honors, completion of rigorous coursework, the strength of the applicant's transcripts, and a letter of recommendation attesting to the student’s qualifications.

Application materials include a completed and typewritten application, a 1,000 – 1,500 word essay explaining the student's reasons for applying for the scholarship, their career goals, and their qualifications. A letter of recommendation from a department head or advisor must be included, and must include a verification of the applicant's current GPA.

Deadline for receipt of materials vary, but generally occur in December for use in the following academic year. Decisions will be announced in January at the CSA Annual Convention. Current deadlines and criteria are available through the CSA website. Mail application material to

California Seed Association
1521 I St
Sacramento CA 95814

Contact information
phone: 916.441.2251

Website
www.calsseed.org/scholarship.html

DIABLO WOMEN'S GARDEN CLUB SCHOLARSHIP PROGRAM

Each year the Diablo Women's Garden Club, a member of the Diablo Foothills District of the California Garden Clubs federation, offers a number of need- and merit-based scholarships, ranging in value from $500 to $2,000, to undergraduate and graduate horticulture students interested in community planting and gardening and conservation.

Eligible students must be residents of California, currently enrolled in a horticulture, landscape design, landscape architecture, or floristry program, with a minimum 3.0 GPA.

Application materials include a cover letter introducing the applicant, official transcripts, and a sealed letter of recommendation from an instructor. The deadline for receipt of all materials is in April. Applications and current deadlines may be sought from the contact information provided below. A data sheet and a typed response to interview questions, completed by the student,
should be electronically submitted directly to the scholarship committee; transcripts and letters of recommendation should be mailed separately to

Dolores Geisler
115 El Nido Ct
PO Box 626
Diablo CA 94528

Contact information
Dolores Geisler
e-mail: doloresgeisler@shcglobal.net

WESTERN RESERVE HERB SOCIETY
Each year the Western Reserve Herb Society, a unit-member of The Herb Society of America, awards the Francis Sylvia Zverina Scholarship, worth $4,000, to a undergraduate horticulture student.

Eligible students are U.S. citizens, in need of financial assistance, currently enrolled in a horticulture or closely-related program, with a desire upon graduation to work in the public or non-profit sector (city parks, public gardens, botanical gardens, arboreta) or to pursue a career in education or research. Students must be in the process of completing their second or third year of study at the time of application.

Application materials include three letters of recommendation (two from faculty members, and one from a current or recent employer), official transcripts, and a one- to two-page essay describing the student’s interest in horticulture, extracurricular activities, related work history, career goals, and financial need.

Deadline for receipt of all materials is April 1. An application form may be downloaded from the scholarship portion of The Herb Society of America’s website. Mail materials to

Carol Braverman, Committee Chair
7250 Brecksville Rd
Independence OH 44131

Contact information
Carol Braverman
phone: 216.524.1045
e-mail: ctbraverman@yahoo.com

CALIFORNIA HORTICULTURAL SOCIETY
The California Horticultural Society offers a number of scholarships each year to undergraduate and graduate students planning careers in botany, horticulture, landscape design, plant biology, or other related fields.

Number of awards available and their value are determined by monies available for disbursement each year and by the number of qualified applicants.

Awards are merit- and need-based, and the fitness of each applicant is evaluated on the basis of transcripts, letters of recommendation attesting to the student’s aptitude, character, and abilities, and demonstrated financial need.

Deadlines for receipt of materials vary by year. To request an application, write to
MARY LOU HEARD FOUNDATION HORTICULTURAL SCHOLARSHIP
With donations provided by visitors and admirers of the annual Mary Lou Heard Memorial Garden Tour, the Mary Lou Heard Foundation awards one horticulture student each year with a scholarship towards tuition. Past winners include volunteers who have assisted worked for the foundation in assisting homeowners to prepare their gardens for display in the annual self-guided tour.

Interested applicants should consult the website or use the contact information provided below to request an application form and learn current eligibility criteria and the current deadline for receipt of application material.

Contact Information
The Mary Lou Heard Foundation
8719 Hummingbird Ave
Fountain Valley, CA 92708
phone: 714.566.4800
e-mail: heardsgardentour@yahoo.com

Website
www.heardsgardentour.com

ANIMAL & LIVESTOCK SCIENCE
PACIFIC EGG & POULTRY ASSOCIATION
The Pacific Egg & Poultry Association (PEPA) in association with the Western Poultry Scholarship and Research Foundation offers scholarships to high school graduating seniors, undergraduates, and graduates students to be awarded in fall term of the current year for use in that term and the following spring term.

Number of awards and award values vary each year according to the number of applicants.
Eligible applicants must be full-time students attending a college or university in one of the eleven western US states (including California) or the western provinces of Canada offering curriculum in poultry. Eligible students should be enrolled in an animal science program or be pursuing a certificate or degree in veterinary technology.

Successful applicants will demonstrate financial need, an interest in the poultry industry, and scholastic achievement.

Application materials include a one-page statement concerning the applicant's interest in the poultry industry, their professional goals, their financial need, and their qualifications and experience (including internships or current work experience). Following completion of the application, a separate letter from an academic advisor or department head which will attest to the student's achievements and will verify their reported GPA must be sent directly to PEPA.
All application materials are due in January. Consult the scholarship portion of the PEPA website for the current year’s deadline. Materials should be sent to

**PEPA**  
1521 I St  
Sacramento CA 95814

**Contact information**  
phone: 916 441 0801

**Website**  
www.pacificgq.org/scholarship.html

**NATIONAL CATTLEMEN’S FOUNDATION**  
The National Cattlemen’s Foundation in association with the Chicago Mercantile Exchange Group offer ten Beef Industry Scholarships of $1,500 each to graduating high school seniors or full-time undergraduates pursuing a career in the beef industry. This scholarship is open only to current members of the National Cattlemen’s Association.

Successful applicants will be able to demonstrate a commitment and interest in the beef industry through scholastic achievement, coursework, internships, extracurricular activities, student memberships in professional organizations, work experience, and life experience.

Application materials include a cover page, two letters of recommendation from instructors or professionals in the beef industry for whom applicants have worked, proof of full-time enrollment, and two essays. The two essays are weighted heavily – 80 percent – in the evaluation process. The first one-page essay constitutes a statement of intent concerning the applicant's professional and academic goals. An additional 750-word essay must describe and offer a practical solution for a problem currently facing the beef industry.

Deadlines vary according to year. Consult the scholarship portion of the National Cattlemen’s Foundation website for an application and for the current year’s deadline. Mail all application materials to

**National Cattlemen’s Foundation**  
9110 E Nichols Ave  
Suite 300  
Centennial CO 80112

**Contact information**  
phone: 303.694.0305  
e-mail: rcf@beef.org

**Website**  
www.nationalcattlemensfoundation.org

**ANDY PEEK LIVESTOCK SCHOLARSHIP**  
Each year the Red Bluff Bull and Gelding Sale offers scholarships through the Andy Peek Livestock Scholarship Fund worth $500, $750, and $1,000 to undergraduate students enrolled in an agricultural program who wish to pursue a career in the livestock industry.

Eligible students must be enrolled full-time in an agricultural program. Successful applicants will demonstrate their interest in the livestock industry through coursework, extracurricular activities, employment, and related achievements or honors.
Application materials include proof of registration, current transcripts, two letters of recommendation (one each from an instructor and a member of the community who can attest to the student’s character and achievements), a brief written statement introducing the student and explaining their educational and career objectives, and a 4" x 6" photograph. Consult the supporting website for additional criteria and an application form.

Application materials must be received by December 31. Recipients will be announced the following January at the Red Bluff Bule and Gelding Sale. Mail materials to

Andy Peek Livestock Scholarship
C/o Shasta Livestock
PO Box 558
Cottonwood CA 96022

Contact information
Laurie Norene
Phone: 530 682 7485

Website
www.wmvcattle.com/andyeschool.htm

WEST COAST EQUINE FOUNDATION
Each year the West Coast Equine Foundation offers financial assistance in the form of the Dick Randall Memorial Scholarship to entering college freshman, continuing undergraduates, and high school students who wish to pursue a career in the equine or agricultural industries.

Eligible applicants must be residents of California, Nevada, Oregon, or Washington. Entering freshman must maintain 12 units per term during the course of the academic year for which the scholarships provides funds. Eligible freshman must have maintained a minimum 3.0 GPA in high school prior to entering a post-secondary program. Eligible undergraduates must also maintain 12 units per term during the course of the academic year for which the scholarships provides funds and must have a minimum 3.0 GPA.

Successful applications will be judged by the suitability of the applicant’s major to the goals and purpose of the West Coast Equine Foundation, the applicant’s coursework, GPA, personal statement, and letters of recommendation.

Application materials include a 300-word personal statement describing the student’s educational and professional goals, and how the award will provide assistance in meeting those goals. The application also includes prompts for written responses concerning the coursework the scholarship will fund and a description of other means of financial assistance (personal income, other awards, employment) the student will use to fund their education. Transcripts, two letters of recommendation, and a current photograph of the student must also be included in the application materials.

Applications must be typed. The deadline for receipt of materials is currently June 30; consult the website for future deadlines and updated eligibility criteria. Mail materials to

West Coast Equine Foundation
7200 Lone Pine Dr
Rancho Murieta CA 95683

Contact information
Phone: 916.354.2119
CALIFORNIA CATTLEMEN'S ASSOCIATION SCHOLARSHIP PROGRAM
Each year the California Cattlemen's Association (CCA) Scholarship program offers a number of scholarships to undergraduate agriculture and veterinary students who wish to pursue a career in the beef cattle industry (production, trade, nutrition, marketing, agricultural education, etc.)

Eligible applicants must maintain a minimum 2.75 GPA and be current young, regular, or feeder members of the California Cattlemen's Association information about types of membership and applying for membership in the CCA can be found on association's website.

Applicants are evaluated based on their stated career goals; involvement in school, community, and professional activities related to the beef industry; leadership qualities; and financial need. Applicants will be screened based on the aforementioned criteria, and a selection of finalists will be requested to attend an oral interview with the selection committee to determine the ultimate recipients.

Application materials must include transcripts, two letters of recommendation, a 500-word personal statement describing the applicant's career goals, a list of awards and honors received, and a list of extracurricular activities and hobbies.

The current deadline for receipt of all materials is May 13 (or the preceding Friday, should the 13th fall on a weekend). Consult the CCA website for current deadlines and for a copy of the application form. Mail all materials to

California Cattlemen's Association
C/O Megan Huber
1221 H St
Sacramento CA 95814

Contact information
Phone: 916-444-0846

Website
www.westcoastequinefoundation.org

FRIENDS OF THE CALIFORNIA STATE FAIR SCHOLARSHIP PROGRAM
Each year the Friends of the California State Fair Scholarship Program offers a number of awards — ranging from $250 to $1,500 — to high school, undergraduate, and graduate students pursuing an education in an agricultural field. Residents of California are the only applicants eligible to receive an award.

Award categories vary, and depend on course of study and career objectives. Each applicant is allowed to apply for one category only, and all applicants automatically compete for an overall $5,000 scholarship in addition to monies received from the category selected. There are some categories for which community college students are ineligible. In categories offering awards for which community college students are eligible, such students must be currently enrolled in an AA/AS terminal program with a minimum 3.0 GPA.

Prior to announcing the names of the final recipients, the scholarship committee will request an interview with a selection of finalists for each category. Applicants must agree prior to submitting their application that should they be selected as finalists, they will attend this formal interview,
which will be held in Sacramento prior to the announcement of the final category recipients and the recipient of the overall bonus scholarship.

All application materials must be submitted in a single envelope. These include one set of original and one set of copies of the following materials: a completed application form; a 2 – 3 page, double-spaced personal statement in 12-point font describing the applicant's career and academic goals, interest in an agricultural field, and experience in school, community, or extracurricular activities related to that field; official transcripts; two letters of recommendation (at least one from an instructor or academic advisor on departmental letterhead); and, in some categories, an additional essay response to a specific prompt.

Deadline for receipt of materials varies according to year. Consult the website for current deadlines and a copy of the application form and category criteria. Application materials may be mailed or hand-delivered.

Mail application materials to
Friends of the Fair Scholarship program
c/o Sandi Hurgen
California State Fair
PO Box 15649
Sacramento CA 95852

Hand deliver materials to
1600 Exposition Rd
Sacramento CA 95815

Contact information
phone: 916.263.3149
e-mail: entryoffice@falexpo.com

Website
www.bigfun.org

SAN DIMAS WESTERN DAYS RODEO SCHOLARSHIP

The San Dimas Western Days Rodeo, sanctioned by the Professional Rodeo Cowboys Association (PRCA), is held in October each year at the Tex Shoemaker arena, and awards through its scholarship foundation annual financial assistance to high school and college students.

Eligibility is not limited to a major or field of study. Eligible students should be active in their communities, should be involved in school clubs or associations, and should participate in extracurricular activities related to their field of study.

Application materials include a completed application form and a personal statement discussing (a) the applicant's career goals, (b) an educational project or activity of personal importance to the applicant, and (c) an individual who has influenced the applicant's life. The strength of the completed application and personal statement will determine which applicants are asked to attend a formal interview with the scholarship committee, after which a select number of successful applicants will be named scholarship winners.

Deadlines for receipt of application material vary by year, consult the contact information or website for an application form and the current deadline. Applications may be mailed or hand-delivered.

Mail application materials to
San Dimas Rodeo Scholarship Committee
PO Box 3180

Hand deliver materials to
Janie Graef, Scholarship Chairperson
1630 West Covina Blvd, #90
THE RACE FOR EDUCATION
The Race for Education (REF) is an outreach and education program that provides scholarships for students with significant financial need who are pursuing degrees in agriculture and equine management.

A number of diverse scholarships with distinct eligibility criteria are available to students on an annual basis. Consult the REF website's [scholarship FAQ](#) for information about each scholarship.

All application material must be submitted electronically through the on-line STARS (scholarship tracking and review) portal linked from the REF's website. In addition to completing the on-line application form, applicants will be requested to upload scanned copies of their transcripts and letters of recommendation. Applicants must also complete, separately, a [FAFSA](#) in order to be eligible for an award.

Applications are available beginning in November of each year. Consult the [REF website](#) for deadlines and instructions for completing the on-line application.

Website
[raisedforeducation.org](#)

UNITED STATES PCNY CLUBS SCHOLARSHIP PROGRAM
Each year the United States Pony Clubs (USPC) scholarship committee awards scholarships to its members for academic excellence, outstanding personal achievement as club members, and leadership and service within individual clubs.

Information about [club membership](#) and USPC [member clubs in the southern California region](#) can be found through the USPC website.

A number of scholarships are available each year, and applicants are judged by Pony Club ratings achieved, GPA, involvement in club activities and related equestrian pursuits, and related honors and awards received. Consult the USPC website for a list of scholarships and scholarship criteria. Applicants may apply for multiple scholarships using [one application form](#).

Supplementary application materials include an essay describing how membership in the Pony Club has influenced and benefited the applicant's life, two letters of recommendation, official transcripts, and a verification of enrollment.

Deadline for receipt of all application material is March 31. Mail material to

USPC scholarships
4041 Iron Works Pkwy
Lexington KY 40511

Contact information
APPALOOSA YOUTH FOUNDATION

Each year the Appaloosa Youth Foundation provides scholarships to outstanding members of the Appaloosa Horse Club (ApHC) or Appaloosa Youth Association (AYA) who have experience riding or showing Appaloosas or whose family owns Appaloosas and who profess a lifetime interest in horsemanship.

Scholarships are not limited to those students pursuing a degree related to equine management, but are open to students in any major or field or study provided they can demonstrate an interest in Appaloosas or horses, in general, through: coursework; extracurricular and community activities; membership in related organizations; and/or participation in ApHC- or AYA-sponsored events. In addition, applicants are evaluated on the strength of their personal statements, letters of recommendation, GPA, and demonstrated financial need.

Applications materials include a personal statement, three letters of recommendation mailed by referees separately from the application form completed by the student, official transcripts, proof of enrollment, and a recent photograph of the applicant. Application forms must be sought through the applicant's local ApHC office.

Information about membership in the ApHC and AYA may be found through their respective websites.

Deadline for receipt of application materials is June 1. Mail materials to

Appaloosa Youth Foundation Scholarship Committee
2720 W Pullman Rd
Moscow ID 83843

Website
http://www.appaloosayouth.com/contests/scholarships.htm

ARABIAN HORSE FOUNDATION

Each year the Arabian Horse Foundation (AHF) awards scholarships to current and former youth members of the Arabian Horse Association (AHA) who have a demonstrated financial need and who are active within the AHA and related organizations.

Applicants are evaluated on their academic abilities, leadership skills, and involvement in equine activities.

Application materials include two letters of recommendation, official transcripts, and a copy of the applicant's ACT / SAT scores.

Information about membership in the AHA can be found on that organization's website.

Deadline for receipt of materials varies by year, but falls in April. Mail materials to

Arabian Horse Foundation
ATTN: Scholarships
VETERINARY TECHNOLOGY

OXBOW ANIMAL HEALTH SCHOLARSHIP PROGRAM
The Oxbow Animal Health Scholarship program offers two distinct scholarships annually for undergraduate students pursuing a degree in animal science or veterinary technology.

The **Oxbow Undergraduate Scholarship** is a $1,000 award for undergraduate students with a demonstrated interest in working with companion animals. Application materials include a résumé or CV compiling employment history and related extracurricular activities; two letters of reference; proof of full-time enrollment in an animal science or veterinary technology program; official transcripts with current GPA; and a 300 – 500 word essay explaining the applicant’s interest in a career in the companion animal industry.

The **Oxbow Veterinary Technology Scholarship** is a $500 award for veterinary technology students who can demonstrate an academic and professional interest in small and exotic animal medicine. Application materials include a résumé or CV compiling employment history and related extracurricular activities; one letter of reference; proof of full-time enrollment in an accredited veterinary technology program; official transcripts with current GPA; and a 300 – 500 word essay explaining the applicant’s interest in the exotic animal field.

Applications for both scholarships are due in March, and deadlines vary according to year. Awards are available for use in the following fall term. Consult the Oxbow Animal Health website for application forms and current deadlines. Mail application material to

**Oxbow Animal Health**
**Attention: Undergraduate Scholarship or Veterinary Technology Academic Scholarship**
29012 Mill Rd
Murdock NE 68407

**Contact information**
phone: 800.249.0366
fax: 402.867.3222
e-mail: academy@oxbowanimalhealth.com

**Website**
[www.oxbowanimalhealth.com/academy/scholarships](http://www.oxbowanimalhealth.com/academy/scholarships)

LESBIAN AND GAY VETERINARY MEDICAL ASSOCIATION
Each year the Lesbian and Gay Veterinary Medical Association (LGVMA) offers one $750 scholarship to a veterinary technician student whose academic and professional experiences demonstrate their commitment to promote the role of veterinary medicine in public health programs and public health policies, who recognizes the importance of veterinary medicine in fostering a human-animal bond, and who has a demonstrated history in working with animals as care-givers for ailing or disabled pet-owners.

Eligible students must be enrolled full-time in an accredited veterinary technology program.
Application materials include a cover letter with the applicant’s name, contact information, current mailing address, name and address of school, and expected date of graduation. Applicants must include a 500 word statement attesting to the applicant’s strengths and interests with respect to the purpose and mission of the scholarship as explained above. Official transcripts must be included with the application. **Letters of recommendation are not required, but recommended.** If the applicant chooses to include references, the LGVMA recommends the student to seek referees from among current or former instructors, faculty members, and/or members of the LGVMA.

Deadline for receipt of application materials is **May 30.** Applications may be e-mailed, or sent to the following **address**

LGVMA Technician Scholarship Committee
14 Powder Hill Rd
Enfield CT 06082

**Contact information**
e-mail: vettechs@lgvma.org

**Website**
www.lgvma.org/techs/

**LANDSCAPE**

**CALIFORNIA LANDSCAPE CONTRACTORS ASSOCIATION / LEAF SCHOLARSHIP PROGRAM**

Each year the Landscape Educational Advancement Foundation (LEAF), established by the California Landscape Contractors Association (CLCA) Women’s Auxiliary, awards scholarships to undergraduate students enrolled in an ornamental horticulture program who wish to pursue a career in landscape contracting.

Eligible students must be currently enrolled in a minimum 6 units while majoring in ornamental horticulture at a 2-year college or 4-year state university. Award is conditional upon the verification of enrollment in the following fall term, and may be applied either at the student’s current college or at another accredited school if they plan to transfer.

Successful applications will be evaluated on the strengths of the student’s academic record, financial need, career goals, employment history, extracurricular experience, and letters of recommendation.

Supplementary application materials include **three letters of recommendation** by a current or the most recent employer, instructor, academic advisor, activities advisor, or any other appropriate referee who can attest to the student’s abilities, leadership skills, and interest in landscaping. The application also provides prompts for short written responses regarding the student’s interest in the landscaping industry, educational objectives, and reasons for requesting financial assistance.

Application materials must be sent in a single envelope and postmarked **April 15** (or the previous Friday if the 15th falls on a weekend). Send materials to

LEAF Foundation
1491 River Park Dr, Suite 100
Sacramento CA 95815

**Contact information**
PROFESSIONAL GROUNDS MANAGEMENT SOCIETY
The Professional Grounds Management Society (PGMS) offers annual scholarships to students currently enrolled in a horticulture program related to grounds or turf management, landscaping, irrigation, or a closely related field. The number of recipients of the PGMS scholarships vary each year according to the discretion of the scholarship committee, and the committee awards their recipients over $6,000 total, increasing by at least 5 percent each year. The top recipient will also receive free registration at and recompense for traveling expenses to the Green Industry and Equipment Expo (GIE+Expo) held in Louisville KS each October.

Eligible applicants must be currently enrolled in a horticulture program or be recently graduated from high school with plans to enroll in a horticulture program the following fall term. The applicant must be sponsored by a current PGMS member, and must be able to document their involvement in grounds or landscaping management or maintenance through coursework, employment history, membership in professional organizations, volunteer work, and extracurricular activities.

Application materials include a completed application form, a typed cover letter serving as a letter of introduction, describing the applicant's qualifications, experiences, and interests, and explaining how they will use their award towards their education. A current résumé or CV, including certificates earned, awarded or honors garnered, and extracurricular activities, must be included, as well as transcripts, two letters of recommendation, and a letter from the PGMS member who is sponsoring the applicant.

Deadline for receipt of application materials is January 1. Winners will be notified by January 31. Mail application material to

Professional Grounds Management Society
720 Light St
Baltimore MD 21230

Website
www.pgms.org/pgmsscholarship.htm

INTEGRATED PEST MANAGEMENT
APHIS PPQ WILLIAM F HELMS STUDENT SCHOLARSHIP
Each year the USDA’s Animal Plant Health Inspection Service (APHIS) agency offers undergraduate students financial assistance of up to $5,000 per year and an opportunity for paid work experience during session breaks in the summer and holidays with the Plant Protection and Quarantine (PPQ) program, which is involved in controlling and eliminating exotic pests and diseases from agricultural and natural resources. Recipients will work with other federal, state, and local agricultural personnel and will learn from licensed USDA PPQ applicators the proper procedure for pesticide applications, and may participate in quarantine activities, inspecting goods for export, trapping invasive species, and performing surveys for invasive diseases. Helms scholars who have completed their education, training, and work requirements may be offered, upon completion of their current educational program and their required hours with the PPQ as a student employee, full-time employment in the PPQ.
Eligible students are U.S. citizens, enrolled in an agricultural or biology program with sophomore or junior standing while maintaining a minimum 2.5 GPA. Award is contingent upon agreement of the recipient to complete 640 hours during school breaks with the PPQ prior to the completion of their studies.

Application materials include an optional application for federal employment (9F-612) or résumé, and a personal letter introducing the student and their career goals, explaining their interest in integrated pest management, and explaining how their abilities and academic and professional experiences will ensure them a meaningful contribution to the PPQ during their employment as a Helms scholar. Applicants must also include current transcripts and three letters of recommendation.

Applications must be postmarked March 1 for award of benefits in the following fall term. In certain years, the William F. Helms Student Scholarship is not offered – CONSULT THE USDA APHIS OFFICE PRIOR TO COMPLETING YOUR APPLICATION FOR THE CURRENT STATUS OF THE SCHOLARSHIP. Mail material to

United States Department of Agriculture
Attention HR / Recruitment
1400 Independence Ave SW Room 1710
Washington DC 20250

Contact information
phone: 202.690.4759

Website

PESTICIDE APPLICATORS PROFESSIONAL ASSOCIATION
Each year the Pesticide Applicators Professional Association (PAPA) provides two qualified undergraduate horticulture students with an interest in integrated pest management one $2,500 scholarship each.

Eligible applicants have at least sophomore standing, or have completed 30 units, and are enrolled full-time in a horticulture or pest management program with a minimum cumulative 2.5 GPA through the term prior to application.

Work experience, pest management-related activities, and academic honors are weighted most heavily among the selection criteria. Additional application material includes a 300 – 500 word essay describing how pest application is part of the applicant’s larger career goals. A résumé or CV, listing relevant work experience, awards and honors received, and extracurricular activities must be included in the application, along with verification of full-time enrollment, official transcripts, and two letters of recommendation (one from an instructor or faculty member and one from a member of the pest application industry who can attest to the applicant’s abilities and experiences).

Deadlines for receipt of materials varies, but generally falls in April. Consult the PAPA website for current deadlines and a current application form. Mail all application material to

PAPA Scholarship
PO Box 80095
Salinas CA 93912

Contact information
Judy Letterman  
phone: 831 442 3536  

Website  
www.papaseminars.com  

CALIFORNIA WEED SCIENCE SOCIETY  
The California Weed Science Society (CWSS) provides two forms of financial assistance for undergraduate students with a keen interest in weed and invasive plant management. Undergraduates enrolled in a horticulture program may apply for the CWSS Undergraduate Scholarship, worth $2,000, or for an 8-week CWSS Internship program, worth $3,000 or more.

Application materials for both the scholarship and internship program must include a cover letter with the student's name, contact information, college, and expected graduation date. A résumé or CV stating the applicant's current GPA, work experience, related coursework completed, related extracurricular activities, and honors received must be included. A 500 word statement describing the student's interest and experiences in invasive plant management is a requirement. Finally, a letter of recommendation from an academic advisor or instructor must be included in the application materials.

Prior to submitting their application, students interested in the internship program must contact a member of the University of California personnel from an approved list who is willing to sponsor and work with the applicant during the 8-week internship period. Students must select a potential advisor prior to applying. A list of personnel is available on the CWSS website. Interested applicants may contact Tom Lahini (wtlanini@ucdavis.edu) for more information about the internship program, work duties, and expected location.

Deadline for receipt of all application materials is March 15. All application material should be mailed in a single envelope, or e-mailed, to

Rob Wilson  
UC ANR Intermountain Research and Extension Center  
2816 Havilna Rd PO Box 850  
Tulelake CA 96134  
rwilson@ucdavis.edu  

Website  
www.cwss.org/scholarships.html  

TURF  

TURF AND ORNAMENTAL COMMUNICATOR'S ASSOCIATION  
The Turf and Ornamental Communicator's Association (TOCA) offers $2,500 each fall term to an undergraduate pursuing a career in green industry communications and currently enrolled in a horticulture program or related field (including plant science and botany) at a 2- or 4-year college offering curriculum in turf management.

Eligible students must demonstrate an interest in using their course of study towards field communications, must have an overall 2.5 GPA, and a 3.0 GPA in their course of study.

Application materials include two academic or professional letters of recommendation, a résumé or CV, transcripts, a writing sample previously published or suitable for publication, and a 500 word essay briefly describing the student's (a) interest in the turf and ornamental industry; (b)
communications experience (such as writing or editing experience in a student publication or academic journal); and (c) professional goals.

Application materials must be e-mailed to barbarulschmid@gardnerandgardnercommunications.com and titled “TOCA scholarship.” The deadline for receipt of all materials is March 1. Applications can be found on-line at the TOCA website.

Contact information
Den Gardner or Barb Ultschmid
phone: 952.758.6340
e-mail: toca@gardnerandgardnercommunications.com

Website
www.toca.org

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA
Each year the Golf Course Superintendents Association of America (GCSAA) in association with the Environmental Institute for Golf offers approximately two dozen scholarships to undergraduate students pursuing a course of study in golf course management, sports turf management, or a closely related field.

The first-place winner receives a $6,000 scholarship and is designated as the Mendenhall Award Winner for that year. The second-place winner receives a $5,000 scholarship and is designated as the recipient of the Allan MacCumrach Award, funded by the PGA tour. The Mendenhall Award Winner and recipient of the Allan MacCumrach Award are also awarded an all-expense paid trip to the next Golf Industry Show sponsored by the GCSAA. Ten to fifteen additional applicants are designated as GCSAA Scholars and receive $1,500 to $2,500 scholarships. Up to an additional ten Merit Winners receive $500.

Eligible students must have completed at least one year (24 credit hours) in a golf course or turf program, must be current members of the GCSAA, and must be pursuing a career as a golf course superintendent or related profession.

International students may apply for the Ambassador Award. These applicants must be able to provide documentation of non-US citizenship, must meet all other eligibility requirements, and must rank as one of the top candidates in the GCSAA Scholars competition based on the selection criteria described below.

Financial need is not a factor in determining eligibility. Successful applicants will be evaluated on academic achievement and honors, employment history, extracurricular activities in golf course or turf management, membership and involvement in turf associations or related organizations, the recommendation of a golf course superintendent, and a letter of recommendation from an academic advisor.

Application materials include transcripts, an advisor's report from an academic advisor or the head of the applicant's department, a superintendent's report from a golf course superintendent for whom the applicant has worked, and an essay not to exceed two double-spaced pages that addresses the applicant's (a) interest in becoming a golf course superintendent; (b) academic and professional preparation for this goal; and (c) general career expectations.

Application and supporting materials are due June 1, and should be mailed to

Golf Course Superintendents Association of America
GCSAA Scholars Competition
GCSAA / ENVIRONMENTAL INSTITUTE FOR GOLF STUDENT ESSAY CONTEST
The GCSAA and the Environmental Institute for Golf sponsor an annual essay writing contest open to undergraduate and graduate students seeking a degree in turf science or a related field.

Up to three applicants may be selected as winners of third-, second-, and first-place prizes, worth $1,000, $1,500, and $2,000, respectively. Winning entries may also be published or excerpted on the GCSAA website.

Eligible applicants must be current members of the GCSAA.

Essays must be 7 – 12 pages in length, typewritten and double-spaced, with a complete list of references or bibliography. The essay topic should focus on golf course management. Essays must include a cover page. Consult the student essay contest guidelines on-line for complete rules and judging criteria.

Essays must be received by March 31, and should be mailed to

Environmental Institute for Golf
Student Essay Contest
1421 Research Park Dr
Lawrence KS 66049

Contact information
Mischia Wright, senior management of development
phone: 800.472.7878 ext. 4445
e-mail: mwright@gcsaa.org

Website
www.gcsaa.org

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF SOUTHERN CALIFORNIA
The Golf Course Superintendents Association of Southern California (GCSASC) Scholarship Committee sponsors an annual scholarship competition available to undergraduate students enrolled in a turf science program who plan to pursue a career in the golf industry.

Number of awards and their value vary by year.

Successful applicants will demonstrate their interest and qualifications in the golf and sports turf industries through coursework, employment history, and extracurricular activities.

Application materials include a brief, 250 word statement explaining why the applicant is requesting financial assistance. A letter of recommendation from an instructor or a golf course superintendent who can attest to the applicant's strengths and qualifications is required.
Application deadlines vary by year, but fall in May. Consult the website or use the contact information provided below to request the current year’s deadline. Application forms may be requested through the contact information provided below. Completed applications may be mailed or faxed. Mail applications to

Golf Course Superintendents Association of Southern California
PO Box 77248
Corona CA 92877

Contact information
Cyndy Neal, executive director
phone: 310.528.0723
fax: 951.735.8470
e-mail: cyndy@csmnsupt.com

Website
www.californiagcsa.org/southern-california/

SPORTS TURF MANAGERS ASSOCIATION / SAFE SCHOLARSHIP PROGRAM
Each year, the Foundation for Safer Athletic Field Environments (SAFE), initially funded and founded in 2000 by the Sports Turf Managers Association (STMA), awards two undergraduate student members of the STMA the Dr. James Watson Undergraduate Scholarship and the Dr. Fred Grau Scholarship.

Award values vary by year, but begin at $1,000, and include registration and three nights lodging at the annual STMA Conference and Exhibition.

Successful applicants will demonstrate their dedication to the turf management industry through their academic records and employment history, and will attest in supplementary written statements to their desire to pursue a career in turf management or research. Eligible students must enroll in a minimum 6 units in a two- or four-year program related to sports turf management in the academic year following the award period, will have at least one semester’s coursework left to complete by the application deadline, and will be a current member of the STMA.

Selection is based solely on merit, rather than financial need. Supplementary materials include a résumé or CV, with a special consideration of extracurricular activities, volunteer work, academic honors, previously awarded scholarships, membership in professional organizations, and participation in events hosted by those organizations; a short essay on the student’s desire to enter the turf management industry and their educational goals; a biographical essay concerning the student’s experiences in the turf industry and other closely related experiences; sealed, official transcripts; a sealed employer reference; and a sealed letter of recommendation from a member of faculty.

Application and supplementary materials must be mailed in a single envelope and received by October 15 (or the preceding Friday, should the 15th fall on a weekend) Mail materials to

SAFE scholarship program
805 New Hampshire, Ste E
Lawrence KS 66044

Contact information
phone: 800.323.3875
e-mail: stmainfo@stma.org
ARBORICULTURE
SARA SHALLEMBERGER BROWN GCA NATIONAL PARKS CONSERVATION SCHOLARSHIP
The Garden Club of America (GCA) in partnership with the Student Conservation Association (SCA) awards one student $3,000 annually to complete summer field training with the National Parks Service as an SCA crew leader apprentice.

Eligible students are undergraduates between 19 and 20 years of age, interested in conservation, environmental education, and outdoor field training. The recipient of the award will be mentored by an SCA crew leader to assist in the supervision and management of a team of SCA high school students on service projects and recreational trips. Successful applicants will have some experience in outdoor/wilderness youth educational programs, or related activities, and may have practiced in trail restoration.

Application materials must include a short essay describing how the scholarship will contribute to the student's educational or professional goals, and two letters of recommendation (preferably one from an instructor who can speak to the applicant's abilities).

Application materials must be received by February 1.

Mail application and letters of recommendation to

GCA Awards for Summer Environmental Studies
 c/o Doug Caunt, Conservation Crews
The Student Conservation Association
PO Box 550
Charlestown NH 03604

Contact information
Connie Yates, Garden Club of America
phone: 212.753.8287
fax: 212.753.0134
e-mail: cyates@gcamerica.org

Website
http://www2.gcamerica.org/outreach-scholarships_details.cfm?ScholarshipID=31

STREET TREE SEMINAR, INC.
Street Tree Seminar, Inc. awards scholarships worth $500 - $1,500 annually to southern California college students seeking to enter the fields of urban forestry and arboriculture.

Eligible students must be currently carrying 12 units while enrolled in an arboriculture, horticulture, or natural sciences program.

Selection criteria are weighted, and factor in GPA, financial need, extracurricular and academic involvement and honors, employment history, a letter of recommendation from an academic advisor, a one-page essay on the importance of street trees suitable for publication in the Street Tree Seminar, Inc. monthly newsletter, and an oral interview to discuss the student's educational and professional goals (to be conducted November 10).
Application and supporting materials must be received by the organization by November 1. Applicants may be asked subsequent to the deadline to supply academic transcripts or testimonies of employment to support their application. As a condition of receiving their award, applicants must agree to participate in an awards ceremony hosted by the organization and scheduled for November 15.

Mail application material to

Street Tree Seminar, Inc.
Scholarship Committee
PO Box 6415
Anaheim CA 92806

Contact information
Dan Jensen, scholarship chairperson
Phone: 714.841.2905

Website
http://www.streettreeseminar.com/scholarships.aspx

TREE RESEARCH AND EDUCATION ENDOWMENT FUND
The Tree Research and Education Endowment (TREE) Fund annually offers two scholarships for college students interested in a career in commercial arboriculture.

The Robert Felix Memorial Scholarship is a $3,000 award to be presented in two halves, one payment each for two consecutive terms. Proof of GPA and enrollment in the second term must be provided prior to final payment.

Eligible applicants must be student members of the International Society of Arboriculture (ISA), must be entering their second year of a two-year/associate's degree program, and must have a 3.0 GPA.

Application requirements include a written referral from a departmental advisor, two additional letters of recommendation; a letter of intent, describing the applicant's education and professional goals; and a completed application form. All application materials must be submitted by May 1.

Applications for the Robert Felix Memorial scholarship may be submitted online, or to the TREE fund office at the address below.

The John Wright Memorial Scholarship is a $2,000 award to be presented in two halves, one payment each for two consecutive terms. Proof of GPA and enrollment in the second term must be provided prior to final payment.

Applicants must be US citizens, must be seeking their first bachelor's or associate's degree, must have a 3.0 GPA, and must be employed at least part-time during spring and fall terms. Eligible applicants should have a documented history of volunteer work and community service, and should be able to demonstrate a skilled writing ability in a writing sample. Letters of recommendation should attest to their character and ability to complete difficult tasks. All application materials must be submitted by June 15.

Applications for the John Wright Memorial Scholarship may be submitted online, or to the TREE Fund office at the address below.

Mail application materials for both scholarships offered by the TREE Fund to
The TREE Fund
552 S Washington St
Suite 109
Naperville IL 60540

Contact information
phone: 630.369.8300
fax: 630.369.8382

Website
www.treefund.org/grants_scholarships.htm

FLORICULTURE & FLORAL DESIGN
AMERICAN FLORAL ENDOWMENT
The American Floral Endowment offers 18 distinct scholarships annually for students who
wish to pursue a career in floriculture, floral design, horticulture, propagation, or a closely related
field.

Eligible students must be citizens of the U.S. or Canada, or be currently enrolled in a
horticulture program at a two- or four-year accredited U.S. or Canadian college, and must
possess a minimum 2.0 GPA.

Awards range from $500 to $2,000.

Applicants may complete one application to compete for up to 6 scholarships of their choice.
Application materials include a statement of intent, a list of annual income and expenses, two
letters of recommendation (preferably one each from an instructor and an employer), and
transcripts.

The deadline for receipt of all application materials is May 1. AFE recommends that students
complete their applications on-line, and prefers that supporting material (letters of
recommendation and transcripts) be e-mailed as MS Word documents or PDF files to
afe@endowment.org.

Mail paper application material to

AFE scholarship applications
American Floral Endowment
1601 Duke St
Alexandria VA 22314

Contact information
phone: 703 838.5211
fax: 703 838.5211

Website
www.endowment.org

AFE INTERNSHIPS
In addition to providing scholarships, the AFE sponsors two distinct internship programs for
students interested in commercial and retail floriculture.
The Vic and Margaret Ball Intern Scholarship program provides floriculture or horticulture students funding for a scholarship and paid internship in a commercial production setting. Eligible students may apply for a six month paid internship and a $6,000 scholarship, a four month paid internship and a $4,000 scholarship, or a 3 month summer paid internship and a $1,500 scholarship.

The Mosmiller Intern Scholarship program provides students interested in a career as a retail or wholesale florist with a ten to sixteen week paid internship in a retail setting and a $2,000 scholarship.

Eligible students for both programs are U.S. citizens currently enrolled in a floriculture or horticulture program at a 2- or 4-year college with a minimum 2.0 GPA. Internships must be completed prior to graduation. Training will be provided in a geographic region other than the student’s home or school location.

There are two deadlines for receipt of application materials for both scholarships, October 1 and March 1. Internships must begin within 12 months of application date. For application forms and more information, consult the AFE website.

Website
www.endowment.org

SCHOLARSHIPS AT MT. SAC
MT. SAC SCHOLARSHIP PROGRAM
Each spring term the Mt. SAC Scholarship Program accepts applications for nearly $250,000 in financial aid available to eligible students for use in the following academic year.

Eligibility requirements vary, and not all scholarships are limited to those applicants who can demonstrate financial need. All scholarships are limited to those students who are returning to Mt. SAC in the following fall term, or who are transferring to another eligible and accredited school.

Of particular interest to students in the Agricultural Sciences department is the Harold Bredlove Memorial Scholarship, a $1,000 scholarship annually awarded to a horticulture student. Eligible students must be enrolled in a minimum of 12 units during the spring term and possess a minimum 2.0 GPA. Successful applicants will demonstrate financial need, and preference is given to applicants pursuing a certificate in tree care maintenance, landscaping, irrigation, or plant nursery operations.

Award is conditional upon the recipient's attendance at a scholarship awards ceremony, to be held at the end of the current spring term. Awards will be disbursed in two equal payments during the following academic year.

A list of scholarships available to the student will be provided during the on-line application process. Applications must be completed on-line at http://stars.mtsac.edu, and the submission process require that applicants write short essay responses to prompts and a lengthier personal statement.

Application workshops designed to provide students with guidance in successfully completing their applications and in drafting appropriate personal statements are offered during the spring term during dates prior to the application deadline.

All applications must be submitted in May. Deadlines vary according to the year; consult the Financial Aid office's website on scholarships for the current deadline.
You may consult the scholarship program's office in the

Student Services building
counter #7 of Financial Aid

You may phone the office at 909.274.4457
You may e-mail the office at scholarships@mtsac.edu

THE ASSOCIATED STUDENTS OF MT. SAC SCHOLARSHIPS
The Associated Students of Mt. SAC offer book and bus scholarships each term, and several scholarships per year based on service to Mt. SAC and the local community.

Consult http://as.mtsac.edu/scholarship.htm for more information about current scholarships available, application deadlines, and eligibility requirements.

MT. SAC FACULTY ASSOCIATION
Each year the Mt. San Antonio College Faculty Association provides scholarships to especially outstanding students with their Academic Scholarship Achievement Award, which in the past has varied in value from $250 to $1,500.

Eligible students must be currently attending Mt. SAC, must have a minimum 3.8 GPA, must have completed at least 56 units by the end of the current academic year, and must have completed at least 12 units during the course of the current academic year. Prior recipients of scholarships sponsored by the Faculty Association are not permitted to reapply. Students in current possession of a degree higher than an Associate's are not eligible to apply.

Award is conditional upon verification that all eligibility criteria has been met as well as obligatory attendance at the annual Faculty Association Student Achievement Fund Award Ceremony held in June at the end of the spring term.

Supplementary application materials include a completed Work in Progress form, a student copy of the applicant's Mt. SAC transcripts (available from the transcripts office within 24 hours from a formal request, or immediately through the Mt SAC Sanner portal); a short description of the applicant's extracurricular activities and volunteer work, a typed and double-spaced, 250 – 300 word statement concerning the applicant's educational experiences at Mt. SAC; and two letters of recommendation from faculty.

Application deadlines vary, but occur in April. Consult the Faculty Association website, your department advisor, or the Faculty Association office for an application packet, current eligibility criteria, and the current deadline for receipt of materials.

Contact information
Liz Ward, chairperson, Faculty Association Scholarship Committee
phone ext: 3025
e-mail: awards@mtsac.edu

WHAT TO CONSIDER BEFORE APPLYING
PREPARING TO APPLY
Contrary to popular belief, many scholarships go unawarded each year because of a dearth of qualified applicants. Apply to as many scholarships as you are able; limit yourself only by financial need and to those scholarships for which you are eligible. To increase your chances of receiving
an award, review all of the necessary criteria and attempt to meet each criterium to the best of your ability.

Grades and financial need are not always the only or the most important criteria for receiving an award, and, indeed, often count less than or equally to a potential recipient's other merits, such as a stated desire to enter the profession represented by the awarding foundation. As such criteria are less obviously quantifiable than a grade-point average, it is necessary for the awarding body to judge an applicant's passion, interests, and future success through personal statements, writing samples, and letters of recommendation attesting to the student's academic accomplishments, leadership ability, job skills, and motivation to work within and promote an industry. Volunteering at local conferences, attending tradeshows, and applying for student membership in professional associations are other notable indicators of an applicant's interests. These are valuable tools for assessing a potential recipient's general suitability for an award.

Always consider re-applying for an award, even if unsuccessful in your first application, by the next deadline.

PERSONAL STATEMENTS AND WRITING SAMPLES
When composing a personal statement, strive to write a clear, concise, and focused essay that conforms closely to the instructions provided, observing recommendations for length or word count.

It is customary to include information about related employment history in the industry represented by the awarding foundation, your involvement in associated clubs and student or professional organizations, your related interests, and your extracurricular activities. If you have been the recipient of other related academic honors or awards, explain in a few sentences the nature of each award and what you used the monies towards.

If asked to write a general statement about your career or academic plans, explain the origins of your interest in an industry, describe specific life and work experiences that have influenced or enhanced this interest, and provide a few concrete examples of what you have learned from these activities. Applicants whose interests and professional goals are closely allied with the overarching purpose of the awarding foundation have a better chance of receiving an award than those who are uninvolved in activities outside their courses, who write in banal, unfocused generalizations, or who appear apathetic or uninformed. You may wish to discuss what attracted you to your field of study, what aspects of your character make you specially suited to the industry, or how the award will help you in pursuing your academic and professional goals.

Applications may request that you provide a writing sample. In some cases, this writing sample will be an essay previously written and submitted for an academic course. Select an essay you feel best represents your writing and research abilities. Feel free to edit previously written work for content, to clarify a particular thought, or to correct errors in grammar or spelling. You may request that a current instructor or one of your academic referees read your edited work to provide some general feedback.

Some scholarship committees wish to read an original essay written on a specific topic, often one that is deemed suitable for publication in an academic journal or an industry newsletter sponsored by the awarding foundation. Find and read copies of this publication or a comparable publication. Model your submitted writing sample on the style of the contents therein, and choose a subject for which you have a special interest or personal experience, and which represents a current issue within the industry as a point of contention, controversy, or research. An academic advisor or member of faculty will often provide you with guidance in writing an essay suitable to the quality and standards of a professional publication.

LETTERS OF RECOMMENDATION
Students often report feeling hesitant to ask instructors for recommendations, but writing recommendations – for applications for scholarships, grants, and transfers to a 4-year university, for admittance to a professional body, or for an internship – are part of the faculty’s normal responsibilities.

References should be sought from instructors who’ve taught at least one, or several, courses in your academic career at Mt. SAC. Select instructors who can attest to your abilities, or for whom in the course of completing a class you have demonstrated some practical abilities or have a written a research paper.

Provide your referees with a copy of the award guidelines whenever possible, so that they can compose a reference best suited to your application.

Provide your referees with enough time to write a thoughtful reference. Time your request for a reference at least a week in advance of the date you plan to send your application.

Award criteria may also include recommendations written by members of a particular professional association (usually connected to the awarding foundation), a department head, or current or past employers or supervisors for volunteer work. Treat these potential referees as you would instructors, submitting a formal request for a written recommendation well in advance of the deadline while providing as much information about yourself and the award as possible.

Referees may request a copy of your transcripts, your résumé or CV, a sample of academic writing, or some additional information about your professional or extracurricular activities, in order to write a more detailed, personal letter recommending you for the award. An informal interview with your referees – to share your thoughts or expectations about what a suitable letter may look like – can be especially helpful.

TRANSCRIPTS
Request copies of your academic transcripts well in advance of the application deadline, and always confirm the correct and current destination for your transcripts through the awarding foundation’s advisor or website.

Information about requesting your Mt. SAC transcripts through the mail or on-line can be found at http://www.mtsac.edu/students/admissions/transcripts.html.
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Introduction

Mt. San Antonio College has always placed a high value on workforce development through the support of strong Career and Technical Education (CTE) programs. These programs are critical to the community and to the local economy, and they provide entry level employees and incumbent workers with skills to improve their standard of living and provide economic growth to local business and industry. Mt SAC’s support and commitment to CTE programs is evident in the college goals:

The College will improve career/vocational training opportunities to help students maintain professional currency and achieve individual goals;

The College will improve the quality of its partnerships with business and industry, the community, and other educational institutions.

Effective advisory committees are vital to the success of CTE programs at Mt SAC. From the first day CTE programs were offered, college leaders connected with the community through advisory committees. They sought their advice to remain current and to plan for program improvement.

California Education Code requires the support of CTE programs through advisory committees. Title 5, #55601 states:
"The governing board of each community college district participating in a vocational education program shall appoint a vocational education advisory committee to develop recommendations on the program and to provide a liaison between the district and potential employers."

Purpose of an Advisory Committee
The purpose of an advisory committee is to help ensure that Career and Technical Education programs reflect the needs and current conditions of the workplace. The committee also provides information to help assess if graduates are capable of performing the occupations for which they have trained. Responsibilities of the Advisory Committee include the following:

- Identify specific skills, knowledge and student attitudes that should be included in the program;
- Assist the College and department in evaluating the effectiveness of the program and the preparedness of the graduates;
- Assist the program in identifying and providing work experience, internships, and employment opportunities;
- Provide up-to-date information related to emerging business and industry trends;
- Assist in the modification and revitalization of existing programs as the needs of industry change;
- Recommend changes in facilities, equipment, materials, and staffing;
- Assist in marketing the program and recruiting students.
A secondary function of the advisory committee is to support the Biennial Review of CTE programs. California Education Code mandates that every vocational or occupational training program offered by a community college district shall be reviewed every two years by the governing board of the district.

This program review must ensure that the program meets a clear labor market demand, that it does not unnecessarily duplicate other training programs, and that it demonstrates effectiveness in program completion and employment placements. Programs that do not meet these standards should be terminated.

**Advisory Committee Membership**

The advisory committee is a group of employers and employees from local business and industry outside the field of education. Committee membership should not be limited to a narrow portion of an occupation. Members should come from differing backgrounds and provide broad perspectives that meet the educational needs of entry level employees and incumbent workers entering a new occupation. Programs that have articulation agreements at one or more institutions should include representatives from those colleges, high schools, and ROPs to serve on the committee.

Advisories should consist of 8-12 individuals who represent industry and diversity within the region. No more than one-third of the membership should be made up of adjunct faculty who are working in the field. Additional adjunct faculty, full-time faculty, and college
administrators may serve as ex-officio members of the advisory committee.

The composition of an advisory committee should include:

- Supervisors or managers currently employed in the industry directly related to the specific program;
- Business owners familiar with entry-level employment requirements;
- Non-supervisory employees performing competencies directly related to the program;
- At least one member knowledgeable about the challenges faced by displaced workers and homemakers, second language learners, migrant workers, and other special populations;
- Recent graduates and former students with at least one year of job-related experience;
- Student leaders from Career and Technical Student Organizations;
- Faculty from other colleges, high schools and ROPs that share articulation agreements with the program.

Recruiting competent advisory members to serve on the committee is extremely important. CTE advisory committee members should be leaders in the industry. They should have technical expertise in the subject area, the influence to affect hiring, and a special interest in the quality of CTE programs at Mt. SAC.
Frequency of Meetings
California Education Code requires that all Career and Technical Advisories meet formally once a year. The dates and times for each meeting should be planned to allow for the greatest participation by members, but should occur prior to the April submission of program review. This schedule allows the integration of committee recommendations into the annual planning process, ePIE. Additional meetings are encouraged to avoid a lengthy agenda at the formal meeting. Web conferencing is an encouraged and acceptable method that can be used to follow up on the annual formal meeting. It is available free of charge through CCC Confer and is accessible to all staff, faculty, and administrators throughout the California Community College system at www.cccconfer.org

Location of the Meeting
Advisory meetings should take place on campus in order to provide the committee access to the program, to classrooms, to equipment, and to its resources.

Meeting and Operating Procedure
The Advisory Committee should be organized by a facilitator. The facilitator should be the program department chair or other faculty member with planning responsibility and interest in the program’s future. The facilitator has the responsibility of making sure that the advisory committee understands its function, its responsibilities, and its role. In addition, the facilitator is responsible for completing the following tasks prior to the meeting:
• Securing the meeting location;
• Verifying membership;
• Preparing the agenda by consulting with department and advisory members;
• Securing hospitality funding by completing and submitting required requisitions;
• Providing the advisory committee invitation material.

The advisory committee invitation material should be sent out one month prior to the meeting to allow business and industry representatives sufficient time for scheduling. The invitation materials should include the following:

• Letter of invitation;
• Roster of advisory members;
• Agenda;
• College map and parking permits;
• Advisory Committee Handbook.

The facilitator is responsible for completing the following tasks following the meeting:

• Preparing the minutes and submitting copies to committee members for approval;
• Providing the Office of Instruction with advisory documentation that includes: letter of invitation, committee roster, agenda, and approved minutes;
• Incorporating advisory committee results into the program
review process through ePIE.

Planning for the Meeting
It is important for the advisory committee to actively and purposefully provide programs with information and advice that leads to instructional improvement. This goal is achieved through open discussions on the strengths and weaknesses of the program.
Discussions may include:

- Program level Student Learning Outcomes;
- Quality and condition of instructional equipment;
- Performance of graduates;
- Changes in the workforce;
- Emerging trends;
- Articulation efforts.

In order to deal with these issues, the agenda should include time specifically to address questions about the quality of the program. The faculty are integral in directing the development of these questions for the committee to address based on their individual subject matter expertise, their relationship to students, and their assessment of Student Learning Outcomes.

Questions that lead to program improvement may include:

- How are program completers performing on specific job task(s)?
- What entry level skills are not supported by the instructional equipment available in the laboratory classrooms?
• What are the challenges to developing consistent work experience agreements?
• What should students know or be able to do as a result of completing a level I certificate?

By addressing questions that explore the quality of the program, faculty are better able to identify and to document where improvements should be made. Strategies can then be developed and implemented to support the goals of the College and to improve the program and the process.

Developing and maintaining a functional advisory committee is a challenging task for CTE programs. A committee composed of knowledgeable and committed members who understand their role and use effective group processes is critical to its success. Programs must understand the importance of advisory input and identify questions for the committee to address. The right balance with an advisory committee is a matter of communication, of trust, and of an understanding that the committee acts in the best interests of the program, its students and the community.
**Water Technology Advisory Committee**

**Agenda and/or Minutes**
**March 8th 2009**
**7:00 p.m.**
**69-124**

**Attending:**
- Richard Anderson, Mt SAC
- Bill Shaffer, MWD
- Jeff Beck, Arcadia Water
- Howard Kayland, MWD
- Mark Volkman, LAPU
- Dicky Betts, RPU
- Jim Capaldi, LAPU
- Barry Oakley
- Mark Varner
- Joyce Carol

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<td>1. Welcome and Introductions</td>
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<td>2. Approval of Minutes</td>
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<td>3. Status of Advisory Recommendations from Previous Meeting</td>
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<td>4. Review of AWWA Grade II pass rates</td>
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<td>5. Program Leaver/Completer Employment Survey</td>
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<td>6. Review of WATER 62 and WATER 63 Math Standards</td>
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<td>7. Tour of Water Facilities</td>
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<td>8. Labor Market and Technology Changes</td>
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<td>9. Summary of Recommendations</td>
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**Issue Bin/Future Agenda:**

**Future meetings:**
Next meeting on 5/22, via CCC Confer.
DATE:    December 12, 2009
TO:      Work Experience Advisory Committee
FROM:    [Your name and title]
RE:      2009-2010 Advisory Committee Meeting

The [Program Title] Advisory Committee Meeting for the 2009-2010 school year will meet on [Meeting Date] at [Meeting Time] in [Meeting Room] at Mt. San Antonio College. Please park in staff parking lot [number] as identified on the enclosed campus map. For your convenience, a temporary parking permit is also enclosed. Please be sure to display the permit on the windshield or on the dashboard of your car.

Your participation is appreciated, and we look forward to meeting with you on [Meeting Date]. If you are unable to attend, please send a designee from your company.

Please RSVP to [Your Contact Information].

Respectfully,

[Your name]
[Your Program]
[Date]
[Prospective member’s name]
[Address and contact information]

Dear [prospective new member]

Mt. San Antonio College prepares students for employment and offers a wide range of career and technical education programs that are rooted in business and industry. These programs must provide appropriate training to our students, as well as a reasonable expectation of employment opportunities within the community. The advisory committee is key to this process. Career and technical education faculty together with members of the community representing business, industry, labor, and government make up the committee which advises the college in a variety of areas essential to the development and support of quality career and technical education programs.

As a community member with knowledge and experience in this field, you are invited to serve on the [your program] advisory committee. The service you provide will help ensure that our program is operating effectively and meets the needs of our students and our local business community.

Advisory committees meet at least once a year. Additional meetings may be scheduled if the committee as a whole agrees that there is a need. Your advice and/or expertise may also be sought via phone, via written communication, or via email.

If you are willing to serve, or if you have any questions regarding your service on this committee, please contact [your contact information]. Information regarding meeting schedules and agenda items will be sent to you prior to the first meeting.

We look forward to working with you and hope that you will enjoy your partnership with Mt. San Antonio College.

Respectfully,

[Your name and contact information]
[Date]
[Prospective member's name]
[Address and contact information]

Dear [prospective new member]

You have been identified as a leader in the HVAC industry by a representative or faculty member at Mt. San Antonio College. Because of your status, we are asking you to attend Mt. SAC’s Air Conditioning and Refrigeration Advisory Committee Meeting on Thursday, February 7, from 4:30 to 6:30 p.m. in building 69, room 124 in Mt. SAC’s Air Conditioning and Refrigeration Department.

The advisory process is critical to the development and to the maintenance of career and technical education programs at the community college. The committee assists in the review of curriculum, in program improvement projects, and in planning for the upcoming year.

The focus of this year’s meeting is the integration of building automation into the air conditioning and refrigeration curriculum. In addition, we will review lab projects conducted in our advanced mechanical and electrical labs.

We appreciate your perspectives as we plan for 2008 and beyond. Please let us know if you will be attending by calling our department at (909) 594-5611 ext. 4639.

Respectfully,
Lanny Richardson
Air Conditioning and Refrigeration
Mt. San Antonio College
[Date]
[Prospective member’s name]
[Address and contact information]

Dear [prospective new member]

Mt. San Antonio College recognizes the leadership you have provided in Energy Management and the contributions you have made to our students. Because of your demonstrated commitment, we are requesting your participation as an advisory committee member in developing a course that prepares students to participate in college internships and work experience. This advisory meeting is scheduled for Friday, January 22nd from 10:00 a.m. to 12:00 p.m. in building 40, room 122.

Advisory meetings are the foundation for developing career and technical education curriculum. We seek your knowledge of the workplace and expectations of entry level employees to establish the outcomes of a course preparing them for internship. Your participation will help prepare students as they explore careers and plan for their futures.

Please let us know if you are able to contribute to this important process by replying to this email or by contacting Anna Acosta at (909) 594-5611 ext. 5407.

Respectfully,

Darrow Soares
Acting Associate Dean, Career and Technical Education
Mt. San Antonio College
Walnut, California
(909) 594-5611 Ext. 6438
# Advisory Committee Handbook

## ADVISORY COMMITTEE ROSTER/SIGN-IN SHEET

Date: ________________  Time:  From: __________  To: __________

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### PLANNING GUIDE/CHECKLIST

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<td>Secure Advisory Parking Permits</td>
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<td>Provide announcement material to committee members (1 month prior to meeting)</td>
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<td>Send email or call to remind committee members (1 week prior to meeting)</td>
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<td><strong>After the Meeting</strong></td>
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<td>Prepare minutes and submit to committee for approval (consider CCC Confer)</td>
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