

CALIFORNIA POLYFECHNIC STATE UNIVERSITY San Luis Obispo, California 93407 ACADEMIC SENATE 805.756.1258

MEETING OF THE ACADEMIC SENATE

Tuesday, June 5, 2007 UU220, 3:10 to 5:00pm

| I. | Minutes: | none |
|----|----------|------|

- 3:10 II. Communications and Announcements: Introduction of senators for 2007-2008.
 - III. Reports:

Regular reports [please limit to 3 minutes or less]:

- A. Academic Senate Chair:
- B. President's Office:
- C. Provost:
- D. Statewide Senate:
- E. CFA Campus President:
- F. ASI Representative:
- 3:20 Special reports [please limit to 10 minutes or less]:
 Bill DurginlLarry Kelley: report on campus budget for 2007-2008.
 - IV. Consent Agenda:
- 3:40 V. Business Item(s):
 - A. Curriculum Proposal: New Degree Program for BA, Liberal Arts & Engineering Studies: Hannings, chair of Curriculum Committee, second reading (pp.2-11).
 - B. Resolution to Approve Proposal for the Establishment of the Cal Poly Center for Global Automated Identification Technologies (poly GAIT): Freed/Opava, representatives for Poly GAIT, first reading continued (pp. 12-16).
 - C. Resolution on Consolidation of Academic Senate United States Cultural Pluralism Subcommittee and Curriculum Committee: Executive Committee, first reading (pp. 17-18).
 - VI. Discussion Item(s):
- 5:00 VII. Adjournment:

Cal Poly, San Luis Obispo Summary Statement of Proposed New Degree Program for Academic Master Plan Projection

1. Title of Proposed Program.

Bachelor of Arts, Liberal Arts & Engineering Studies

Brief description: This is an innovative interdisciplinary program that with a strong foundation in mathematics, science, engineering and liberal arts, enhanced by a global perspective experience. Students will integrate the planning, testing, evaluation and development work that underlies engineering studies with the creative expression, ethical investigation and aesthetics studies that form the core of the liberal arts. The BA LAES is being proposed as a five-year pilot program. The students will be internal transfers from the College of Engineering who are in good academic standing, but decide after the first year or two of their studies that an engineering career is not for them.

2. Reason for Proposing the Program.

This new degree is being proposed for two main reasons.

- 1) To prepare our student to address 21 st century workforce concerns.
 - The educational needs of society calls for graduates whose "exposure to science, mathematics, technology, and engineering during their undergraduate career is good preparation for 'a wide variety of societal roles; and that the nation will depend increasingly on a citizenry with a solid base of scientific and technical understanding' (Center for Science, Mathematics, and Engineering Education, 1996, pA)" From National Academy of Engineers, Educating the Engineer of 2020, 2005, p.35.
 - Thus, the SA in Liberal Arts and Engineering Studies will prepare students for work in both local and global contexts in careers that require
 - broad technical fluency, as well as an ability to examine and articulate the complex sociocultural, political and ethical aspects of issues upon which new public policy and legislation will be developed;
 - integrated new media creation, production, distribution and evaluation in the information and entertainment industries, and the aesthetics of interactive systems design;
 - o technological product management, sales and training;
 - o various areas of technical communication (e.g., technical writing, public relations, patent law).
- 2) To increase retention among well-qualified freshman students admitted into the engineering program who find, early on, that although they have the aptitude, they no longer are interested in engineering as a career.
 - Cal Poly has consistently lost a sizeable number of its engineering students during the Freshman and Sophomore years as these students, for various reasons, become disenchanted with traditional engineering study.
 - Thus, the SA in Liberal Arts and Engineering Studies will

- o provide a new path for well-qualified CENG students who realize engineering is not their sole passion;
- o allow for efficient matriculation for students leaving CENG;
- o create opportunities for students to work on projects with a global emphasis and in multidisciplinary teams involving faculty and students from the CLA and CENG.
- 3. Anticipated Student Demand.

| | Number of Students | | | |
|----------------------|--------------------|------------------|------------------|--|
| | 3 years 5 years | | | |
| | at initiation | after initiation | after initiation | |
| | | | | |
| Number of Majors | | 105 | 120 | |
| Number of Graduates* | O | 20 | | |

^{*}total number of graduates at 3 and 5 years after initiation

4. Indicate the kind of resource assessment used by the campus in determining to place the program on the academic plan. If additional resources will be required, the summary should indicate the extent of university commitment to allocate them and evidence that campus decision-making committees were aware of the sources of resource support when they endorsed the proposal.

Resource needs were estimated based upon the number of new courses proposed for the major and administrative and support costs to coordinate the running of the program during the pilot phase. Provost Durgin, Dean Noori, and Dean Halisky have agreed upon a plan of resource support to initiate the program.

5. If the program is occupational or professional, summarize evidence of need for graduates with this specific education background.

This program is *not* intended as an ABET-accredited engineering program nor is it intended for students interested in careers as professional engineers.

6. If the new program is currently a concentration or specialization, include a brief rationale for conversion.

Not applicable.

7. If the new program is not commonly offered as a bachelor's or master's degree, provide compelling rationale explaining how the proposed SUbject area constitutes a coherent, integrated degree major which has potential value for students. If the new program does not appear to conform to the Trustee policy calling for "broadly based programs," provide rationale:

The degree provides a niche area for Cal Poly that is not available at UCSB, UC-Davis, UCLA, UCSD, Stanford, Cal Tech, or Berkeley. The program is unique on this campus and to the CSU. No other program on campus or in the CSU combines the mathematical and scientific foundation of Engineering with advanced studies in the Liberal Arts.

Similar programs are successfully established at many schools that compete directly with Cal Poly for the same cadre of high caliber students. Universities that offer similar programs include:

Dartmouth University (AB., Engineering)

Harvard University (AB., Engineering)

Johns Hopkins University (B.A, Biomedical Engineering; B.A, Computer Science, B.A, Electrical Engineering, B.A, General Engineering)

Lafavette College (AB. Engineering)

Princeton University (AB. in Engineering and the Liberal Arts)

Purdue University (B.S., Interdisciplinary Engineering)

Rice University, (B.A, Electrical Engineering)

Rochester Institute of Technology (B.A, Engineering Science)

University of Arizona (B.A, Engineering)

University of Rochester (B.A, Engineering Science)

Worcester Polytechnic Institute (B.A, Liberal and Engineering Studies)

Yale University (B.A, Engineering Sciences)

8. Briefly describe how the new program fits with the campus mission statement.

The Bachelor of Arts in Liberal Arts and Engineering Studies

 looks towards the future of the university as embodied in the revised mission statement:

Cal Poly fosters teaching, scholarship, and service in a learn-by-doing environment where students and faculty are partners in discovery. As a polytechnic university, Cal Poly promotes the application of theory to practice. As a comprehensive institution, Cal Poly provides a balanced education in the arts, sciences, and technology, while encouraging cross-disciplinary and co-curricular experiences. As an academic community, Cal Poly values free inquiry, cultural and intellectual diversity, mutual respect, civic engagement, and social and environmental responsibility.

• affirms Cal Poly's polytechnic orientation, while fostering a cross-disciplinary experience combining integrated coursework in engineering, science, and math with an integrated plan of study in the liberal arts.

BACHELOR OF ARTS IN LIBERAL ARTS AND ENGINEERING STUDIES - CURRICULUM DISPLAY

| MAJOR COURSES | |
|---|-------------|
| CHEM 124 Gen Chemistry for Engineering (83/84)* | 4 |
| ENGL 149 Technical Writing for Engineers (A3)* | 4 |
| LAES 301 Project-Based Learning in LAES | 4 |
| LAES 411 Collaborative Global Partnerships in LAES | 4 |
| LAES 461 Senior Project (or other approved SP course) | 4 |
| LAES 462 Capstone Senior Seminar in LAES | 4 |
| MATH 141,142 Calculus I, II (81)* | 4,4 |
| MATH 141,142 Calculus I, II (61) MATH 143 Calculus I (85)* | 4,4 |
| MATH 241 Calculus IV | 4 |
| MATH 244 Linear Systems or Advisor Approved Elective | 4 |
| PHYS 141 General Physics IA | 4 |
| PHYS 132, 133 General Physics | 4,4 |
| Engineering concentration (minimum 8 units at 300-400 level) | 36 |
| Liberal Arts concentration (minimum 12 units at 300-400 level) | 24** |
| STAT 312/321/350 | 4 |
| Study Abroad or Global Perspectives courses (300-400 level)***. | 4,4 |
| Advisor approved elective | • |
| Advisor approved elective | 4 120 |
| CENEDAL EDUCATION (CE) | 128 |
| GENERAL EDUCATION (GE) | |
| 72 units required; 20 units are in Support. | |
| →Minimum of 12 units required at the 300-400 level. | |
| Area A Communication (8 units) | 4 |
| A1 Expository Writing . | 4 |
| A2 Oral Communication . | 4 |
| A3 Reasoning, Argumentation, and Writing * 4 units in Major . | 0 |
| Area B Science and Mathematics (4 units) | _ |
| 81 Mathematics/Statistics * 8 units in Major | 0 |
| 82 Life Science . | 4 |
| 83 Physical Science* 4 units in Major | 0 |
| 84 One lab taken with either a 82 or 83 course | _ |
| 85 (requirement for Liberal Arts students only) *4 units in Major | 0 |
| Area C Arts and Humanities (16 units) | 4 |
| C1 Literature | 4 |
| C2 Philosophy . | 4 |
| C3 Fine/Performing Arts | 4 |
| C4 Upper-division elective . | 4 |
| Area DIE Society and the Individual (20 units) | |
| D1 The American Experience (40404) | 4 |
| D2 Political Economy | 4 |
| D3 Comparative Social Institutions . | 4 |
| D4 Self Development (CSU Area E) | 4 |
| D5 Upper-division elective . | 4 |
| Area F Technology (upper division) | 4 |
| | $\square 2$ |
| ELECTIVES . | 0 |
| | 180 |

- * GE classes; In addition, one USCP course must be taken to fulfill Cal Poly graduation requirements.
- ** Because this is a 180-unit degree, the Liberal Arts GE program, which requires upper division courses in Areas 0 (05) and F, as well an additional course in Area B (B5), is the appropriate GE template. In *most* Liberal Arts concentration options, *at least* 4 units will double-count in GE areas C or O at the upper or lower division level. See concentrations for more specific information.
- *** A fall quarter/semester Study Abroad experience will be strongly encouraged for all students and efforts will be made to make sure that this is a viable and affordable option. Financial aid and scholarships may be available to support students who have completed the *Free Application for Federal Student Aid* (FAFSA) form. The International Programs Office already has in place several special affiliation agreements with a number programs spanning a number of countries and continents, and will welcome the opportunity to pursue more such agreements as programs and needs are identified. For those students who cannot participate in the study abroad portion of the program, National Student Exchange or eight (8) units of integrated, upper division study in Global Perspectives may be selected from a list of approved electives, with an advisor's approval. Neither of these would meet the goals of the program as well, but have been identified as acceptable substitutes.
- 1) Students will select one Engineering Studies concentration from among the following (=36 units):

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CSC - Computer Graphics Concentration (34 units)
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CSC 100 -Introduction to Computer Science (2)

CSC 101 - Fundamentals of Computer Science I (4)

CSC 102 - Fundamentals of Computer Science II (4)

CSC 103 - Fundamentals of Computer Science | (4)

CSC 141 - Discrete Structures I (4)

CPE 129/169 - Digital Design, Digital Design Laboratory (3+1)

CPE 229/269 - Computer Design & Assembly Language Programming, Laboratory (3+1)

CSC 357 - Systems Programming (4)

CSC 471 -Introduction to Computer Graphics (4)

<u>Electrical Engineering - Power Concentration (34 units)</u>

EE 111/151 - Introduction to EE (2)

EE 112 - Electric Circuit Analysis I (2)

EE 211/241 - Electric Circuit Analysis II, Laboratory (3+1)

EE 212/242 - Electric Circuit Analysis III, Laboratory (3+1)

EE 255/295 - Energy Conversion Electromagnetics, Laboratory (3+1)

EE 355/375 - Electromagnetics, Laboratory (4+1)

EE 406 - Power Systems Analysis I (4)

EE 407/444 - Power Systems Analysis II (4+1)

Advisor approved power technical elective (4)

<u>Industrial/Manufacturing Engineering - System Design Concentration (37 units)</u>

IME 101 -Introlndustrial & Manufacturing Engineering (1)

IME 223- Work Design and Measurement (4)

IME 239 -IndustrialCosts and Controls (4)

IME 301 Operations Research I (4)-

IME 303.... Project Organization and Management (4)

IME _____ Engineering Economics (4)

IME 320.... Human Factors and Technology (4) GE Area F

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IME 326 Engineering Test Design and Analysis (4)
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IME 420 - Simulation (4)

IME 443 - Facilities Planning and Design (4)

Production Technologies Concentration (37 units):

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IME 101 - Intro to IME (1)
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IME 141 - Manufacturing Processes: Net Shape (1)

IME 142 - Manufacturing Processes: Materials Joining (2)

IME 143 - Manufacturing Processes: Material Removal (2)

IME 156 - Basic Electronics Manufacturing (2)

IME 223 - Work Design and Measurement (4)

IME 241 - Manufacturing Process Design (4)

IME 314 - Engineering Economics (3)

IME 335 - Computer-Aided Manufacturing I (4)

IME 336 - Computer-Aided Manufacturing II (4)

IME 342 - Manufacturing Systems Integration (3)

IME 418 - Product-Process Design (4)

IME 455 - Manufacturing Design and Implementation I (3)

.ProductOevelopl11enfConcentration(360r3",unitsl:

IME 144 - Intro to Design and Manufaduring (4)

IME157 - Electronics Manufacturing. (4)

IME 303 - Project Organization and Management (4)

IMF 314- Engineering Economics (3)

IMES35 - Computer-Aided Manufacturing 1(4)

IME357 - Advanced Electronic Manufacturing (4)

IME 401 -Sales Engineering (2)

IME 417 - Supply Chain and Logistics Management (4)

IME 418-Product-Process Design (4)

IME 455 - Manufacturing Design and Implementation I (3) or IME 559 - Engineering

R&D (4) or IME 577 - Engineering Entrepreneurship (4)

<u>Engineering Studies Independent Course of Study Concentration (ICS - 36 units)</u>

The Engineering Studies ICS Concentration allows students to pursue a course of study that has either depth or breadth. Because of the flexibility with the Engineering Studies ICS concentration, students will work closely with program advisors to develop an emphasis area, pairing appropriate engineering classes that cut across traditional disciplinary boundaries with a complementary Liberal Arts concentration. Some possible themes include:

- Digital Media
- Entrepreneurship
- Technology & Policy
- Global Development & Service Learning

Courses in the Engineering Studies ICS concentration may include any course offered by the programs listed below. A total of 36 units are required. The plan of study may include courses from one of these programs, or a combination. A total of 8 units must be at the 300-400 level.

- (BMED) Biomedical Engineering
- (CPE) Computer Engineering
- (CSC) Computer Science
- (EE) Electrical Engineering
- (ENGR) General Engineering
- (IE) Industrial Engineering
- (MfgE) Manufacturing Engineering
- (MATE) Materials Engineering
- (SE) Software Engineering

Advisor approved courses in Math, Physics and Chemistry may also be included in the Engineering Studies ICS.

2) Students will also select one Liberal Arts concentration from among the following tracks (24 units):

Culture." Societv& Technology Concentration C24units)

Required Courses -

ES/WS 350 -Gender, Race, Science, & Technology (4) USCP

HUM303 - Values & technology (4) or PHIL 341 - Professional Ethics (4) or PHIL

337 - Business Ettiics (4) All GE Area C4'

POLS 451 - Technology & Public Policy (4)

Advisor Approved Elective Courses (Select at least 3 from the list below):

ANT 360 - Human Cultural Adaptations (4) GE Area D5

COMS317 - Technology & Human Communication (4)

GEOG 318 - Applications In GIS (3)

GEOG 333 - Human Impact on Earth (4)

or HUM 350 – The Global Environment (4)

HIST354 - History of Network Technology (4) GEArea F

HIST359- Living in the Material World (4) GE Area F

JOUR 331 - Contemporary Advertising (4)

JOUR 470 - Selected Advanced Topics in Journalism (4)

PHIL322 - Philosophy of Technology (4) GE Area C4

PHIL 340 - Environmental Ethics (4) GE Area C4

POLS 347 - Politics & Popular Culture (4)

PSY 311 - Environmental Psychology (4) GE Area D5

PSY 494 - Psychology of Technological Change (4)

<u>Interactive Communication Concentration: Cinematic Focus (24 units)</u> *Required Courses:*

TH 210 -Introduction to Theater (4) GE Area C3

ENGL 411 - New Media Art I (4)

ENGL 371 - Film Styles and Genres (4) GE Area C4

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Advisor Approved Elective Courses (choose 3):
ENGL 210 - New Media Technology (4)
ENGL 370 - World Cinema (4) GE Area C4
ENGL 372 - Film Directors (4) GE Area C4
SCOM 311 - Communication Theory (4)
SCOM 385 - Media Criticism (4)
SCOM 419 - Media Effects (4)
ENGL 412 - New Media Art II (4)
ENGL 416 - New Media Study (4)
ENGL 417 - Advanced New Media Projects (2) (must be repeated)
Interactive Communication Concentration: Theatrical Focus (24 units)
Required Courses:
TH 210 - Introduction to Theater (4) GE Area C3
TH 227 -Theater History: Classical (4) GE Area C3
   or TH 228 - Theater History: 18th Century to Contemporary (4) GE Area C3
ENGL 411 - New Media Art I (4)
Advisor Approved Elective Courses: (Select 3 courses from the list below - with no
more than 1 lower division course)
ENGL 210- New Media Technology (4)
TH22 □- Acting Methods {4}
TH310 Women's Theater (4) or TH320 - Black Theater (4) or TH360 - Theatre
in the United States (4) orTH390- World Drama (4) All GE Area C4
TH 230/330 - Stagecraft(4)
TH43.0 - Introduction to Stage Design: Scenery (4)
TH 434 - Introduction to Stage Design: Lighting (4)
HUM 320 - Values, Media & Culture (4) GE Area C4
ENGL 412 - New Media Arts 11 (4)
Technical Communication Concentration (24 units)
Required Courses:
ENGL 317 - Technical Editing (4)
ENGL 319 -,Information Design ☐ Production (4)
COMS 317 - Technology & Human Communication (4)
Advisor Approved Elective Courses (choose 3):
ENGL 210 - New Media Technology (4)
ENGL 310 - Corporate Communication (4)
HUM 303 - Values ☐ Technology (4) GE Area C4
PHIL 337 - Business Ethics (4) GE Area C4
   or PHIL 341 - Professional Ethics (4) GE Area C4
COMS 213 - Organizational Communication (4)
COMS 301 - Business and Professional Communication (4)
ENGL 418 - Technical Communication Practicum (4)
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Publishing Technology Concentration (24 units)

Required Courses:

GRC 101 - Introduction to Graphic Communication (3)

or ENGL 420 - Client-Based Technical Communication (4)

GRC 201 -- Electronic Publishing Systems (3) GRC 211 -- Substrates and Ink (4) HUM 303 - Values & Technology or PHIL 341 - Professional Ethics or PHIL Business Ethics (4) All GE Area C4

Advisor Approved Elective Courses (choose 3-4 courses from the following for 24 units total):

COMS 317 – Technology & Human Communication (4)

GRC 316 -- Flexographic Printing Technology (3)

GRC 328 -- Sheetfed Printing and Platemaking (4)
GRC 329 -- Press Methods and Procedures for Web Offset □Gravure □□□

GRC 402 .. Digital Printing and Emerging Technologies in Graphic Communication

PSY 494 - PSychology of Technological Change (4)

Liberal Arts Independent Course of Study Concentration (ICS - 24 units) Students choosing the Liberal Arts ICS Concentration pursue a course of study that meets their individual needs and interests. Courses are selected with the advice of the student's academic advisor and approved by the program chair.

The Liberal Arts ICS Concentration must meet one of the following requirements: 24 units of an advisor-approved integrated course of study selected from among courses offerings in the College of Liberal Arts, with at least half of the units at the upper division level OR an approved minor program in the College of Liberal Arts selected from among the following minors:

| MINOR | UNITS |
|--------------------------------|-------------|
| Art - | |
| Child Development | 28-29 |
| Communication Studies | 28-29 |
| Dance | \square . |
| English | 28 |
| Linguistics | 28 |
| Ethnic Studies | 24 |
| French | 24 |
| German | 24 |
| Gerontology (PSY/CD) | 28 |
| Graphic Communication | 26 |
| History . | |
| International Relations (POLS) | 28 |
| Latin American Studies | 28 |
| Law & Society (POLS) | 28 |
| Music | |
| Religious Studies (PHIL) | 24 |
| Philosophy | 24 |
| Psychology | 28 |
| Sociology | 28 |
| Spanish | 24 |
| Theatre | 28 |

| Values, Technology, ☐ Society | 2 🗆 |
|--------------------------------|------------|
| Western Intellectual Tradition | 2 🗆 |
| Women's Studies | $2\square$ |

Courses in the Liberal Arts ICS Concentration may double count with GE courses.

| □ 2 □ | |
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State of California Memorandum



| To: | | Date: | |
|----------|--|---------|--|
| From: | Durgin WWI | Copies: | |
| Subject: | Request for Academic Senate Review of the. Proposal for the Establishment of the Cal Poly Center for Global Automated Identification <u>Technologies</u> (poly GAIT) | | |
| | | | |
| | | | |

The Cal Poly Center for Global Automated Identification Technologies (Poly GAIT)

Proposal to the California Polytechnic State University

Executive Summary for the Academic Senate Executive Committee

May 1,2007

Tali Freed Industrial and Manufacturing Engineering

Purpose

Background

Purpose:

We propose to grant Poly GAIT, the Cal Poly Laboratory for Global Automatic Identification Technologies, the status of a Cal Poly University Center. The Laboratory was founded in November 2004 by a group of faculty from several CP colleges interested in Radio Frequency Identification (RFID) and other methods of identifying and tracking objects. Such methods are used to prevent loss, theft, and counterfeiting; increase process efficiency; and provide traceability capabilities in cases of health-threatening disasters. Poly GAIT has been supported by the Dean of Research and Graduate Programs, Susan Opava, from its inception, as well as by Dean Wehner, Dean Noori, and Dean Christy. President Baker and interim provost Detweiler have also visited the lab and praised its energetic, multi-disciplinary, project-based learning and innovation.

Poly GAIT has been generously supported by industry, in cash and in-kind donations and project grants. A process developed in the lab has been submitted to the US Patent and Trademark Office for patenting, and several other innovative ideas are currently being developed into potentially patentable and commercially desirable products or processes.

Fifteen faculty from four Cal Poly colleges are actively working on Poly GAIT projects. There are also several hundred students from all Cal Poly colleges who have been trained in RFID courses, presentations, and projects.

Poly GAIT currently focuses on RFID research, however in the future we expect to expand into other areas, mixing process expertise and new technologies, such as biometric identification.

As a University Center the lab will have better structured administration, retain some of its grants overhead, and will be positioned to receive more funding from government and industry.

Background:

Radio Frequency Identification, or RFID, uses radio waves to automatically identify objects. This automatic identification method relies on storing and remotely retrieving data using devices called RFID tags, antennas, and readers. RFID tags are objects that can be attached or incorporated into a product, animal, or person. There are two types of RFID tags, passive and active. Passive tags have no internal power source, so tend to be smaller and cheaper. Active tags require a power source, however they tend to be more reliable and have a farther read distance and larger memories. The antenna enables the chip in the RFID tag to transmit the identification information to a reader. The reader then converts the radio waves reflected from the RFID tag into digital information that can be passed on to computers.

RFID technology is used in many everyday applications and the number and diversity of applications grows daily. For example, passports are being issued in many countries with RFID tags. Beginning in 2007, some new U.S. passports will include RFID technology. The RFID tags will store the same information that is printed on the passport as well as a digital picture of the owner. RFID tags are also used to track books in bookstores and libraries, pallets across supply chains, airline baggage, apparel and pharmaceutical items, as well as for door access control (e.g. CP pennedy Library). Toll booths and bridges, are using RFID for electronic toll collection (Californias FasTrak). Many large corporations expect RFID to improve their supply chain management. Wal-Mart and the United States Department of Defense started mandating their vendors to place RFID tags on shipments. These mandates impact thousands of companies worldwide. With the use of RFID progressing, research and development organications in this field are in high demand.

Poly GAIT has been working with the RFID community on innovative research and development, while providing Cal Poly students with an exciting, hands-on learning environment. Poly GAIT has taken part in many student-led projects. See Appendix A for a full list. Many of these projects incorporate the very problems businesses are encountering when trying to produce and implement RFID systems; while some projects show new ways RFID can help certain industries. For example, CAFES and OCOB students and faculty are currently working on an RFID system for tracking livestock so that diseases can be quickly traced and eliminated. CLA Graphic Communication students are collaborating with CENG Electrical Engineering students to develop printable electronics. Some of the other areas of research being conducted at Poly GAIT are Warehouse Inventory Tracking, Asset Tracking, Door Access Control, Produce Traceability, Antenna Design, Automated Grocery Store Checkout, and Personali ed Environment Control. RFID has many possibilities for the future and Poly GAIT hopes to be an integral part in the success of RFID technology and future Cal Poly graduates.

Poly GAIT efforts will focus on three primary activities ☐
☐ Education and Training
☐ Innovative Research and Development
☐ Solving Industrial Problems

The Poly GAIT laboratory at Cal Poly focuses on groundbreaking research and development that leads to innovative real-world solutions. Poly GAIT is dedicated to providing the best education

and training to students and industrial partners, and fostering collaboration among industry, government, and academia for the advancement of automatic identification technologies.

Few organi ations have the resources and expertise to develop solutions exploiting the new opportunities and challenges of RFID technologies. An academic institution highly regarded in all aspects of engineering, business and agriculture is the perfect environment to develop prototype and demonstration systems. Cal Poly, with its strong polytechnic tradition of applied learning and problem solving, is ideally suited to undertake the various applied research challenges, multi-disciplinary investigations, solution development, testing, training, and implementation projects presented by the emerging RFID industry.

In addition to providing education and training, performing innovative research and development, and solving industrial problems, the Center plans to accomplish the following objectives

| Partner with industry practitioners to develop innovative initiatives |
|---|
| Enhance the interdisciplinary curriculum and supplement academic learning |
| Augment faculty professional development and applied research opportunities |
| Generate opportunities for faculty salary supplementation (fees for teaching Center |
| courses, patent royalties, consulting) |
| Improve graduating students employment opportunities and entrepreneurial initiatives |
| Provide classes and projects to students from various disciplines interested in |
| identification and tracking technologies |
| Establish external funding for the Center son-going activities |
| Develop opportunities for student engagement in applied research |
| Partner with and strengthen relationships among the different colleges and departments of Cal Poly |
| Develop on-going relationships with other education institutions, research institutions and foundations |

 $Adopted \square$

ACADEMIC SENATE of CALIFORNIA POL \Box TEC \Box NIC STATE UNI \Box ERSIT \Box San Luis Obispo, CA

AS- -07

RESOLUTION ON CONSOLIDATION OF ACADEMIC SENATE UNITED STATES CULTURAL PLURALISM SUBCOMMITTEE AND CURRICULUM COMMITTEE

| 1 2 | W□EREAS, | The Academic Senate United States Cultural Pluralism (USCP) Subcommittee was established in $1 \square 2$ as a standing subcommittee of the Curriculum Committee for the initial review of courses proposed to fulfill the Cultural Pluralism |
|----------------|----------|---|
| 4 | | baccalaureate requirement (AS-IIII); and |
| □ 7 □ | W□EREAS, | The USCP Subcommittee has in effect operated as a separate standing committee with its own membership separate from the Curriculum Committee; and |
| _ 1 | | The service culture of the University is best served by a committee structure that compact and robust; and |
| 1 .2 | W□EREAS, | The curriculum process as it is currently defined is responsible for developing recommendations regarding cultural pluralism as it relates to instruction; and |
| | W□EREAS, | The existing USCP standards are well defined and the number of new course proposals submitted to the USCP Subcommittee has dwindled (no new USCP course proposals were submitted during 200 □ 07); and |
| 8 20 21 | W□EREAS, | According to the Academic Senate bylaws, the Curriculum Committee is responsible for developing recommendations regarding cultural pluralism as it relates to instruction; and |
| 22 24 | W□EREAS, | The Curriculum Committee already reviews all courses proposed for USCP credit; and |
| 2□ 2□ 27 | W□EREAS, | Review of existing USCP courses can be carried out in the context of normal program review; therefore be it |
| 2 | RESOL□ED | That the Academic Senate United States Cultural Pluralism (USCP) Subcommittee be abolished; and be it further |
| 1 2 | RESOL□ED | That the Academic Senate Curriculum Committee assume the responsibilities of the USCP Subcommittee effective immediately; and be it further |

| 4 | RESOL DD That all references to the USCP Subcommittee be removed from the Academic Senate bylaws; and be it further |
|---|---|
| | RESOL DD That other University documents including websites shall be revised immediately to reflect this change. |
| | to reflect this change. |
| | Proposed by □Academic Senate Executive Committee |
| | Date □May 1, 2007 |