Del Mar College

ENGINEERING PROGRAMS AND STEM GRANTS UPDATE
ENGINEERING DEGREES

- Associate in Science (Transfer)
  - Electrical Engineering
  - Mechanical Engineering

- Associate in Applied Science
  - Engineering Technology
    - Alternative Energy
    - Mechatronics
## Engineering Enrollment

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall 2010</th>
<th>Spring 2011</th>
<th>Fall 2011</th>
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<tbody>
<tr>
<td>ENGR 1201</td>
<td>40</td>
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<td>ENGR 1304</td>
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</table>
Computer Science, Engineering and Advanced Technology Department

STEM-RELATED GRANTS
DREAM-IT GRANT
DREAM-IT

Discover
Reinforce
Engage
Attract
Motivate

Interactive Technologies with

NSF ATE grant $300,000 3 years
DREAM-IT

Three components:
- DreamCamp
- DreamCafé
- DreamClub
DREAM-IT GOALS

- Stimulate interest in Computer Science, Information Technology, and technician education pathways by...
  - engaging students who can be advocates
  - training teachers who can implement curriculum

- Remove barriers to pave an easier transition to college enrollment by...
  - creating familiarity with the College for students and parents
  - providing information and resources about the enrollment process and requirements to parents
DREAM CAMP

- Students participate in a two-week grant-designed curriculum for computer programming and communication technology
- Teachers “learn” the curriculum for one week, then teach the students in the Camp with guidance in week two
- Teachers -- yr1: 3; yr2: 4; yr3: 6
- Students -- yr1: 24; yr2: 32; yr3: 48
DREAM CAFÉ

- Focuses on parents/guardians of the student
- Creates a relationship & familiarity with College
- Reduces anxiety about higher education
- Promotes confidence about enrollment process
- Encourages parents to attend first and last days of DreamCamp
- Invites parents to accompany student to DreamClubs
DREAM CLUB

- Extends the student’s connection and interest throughout the academic year
- Meets four times during school year
- Field trips to and explorations of areas with technical and STEM career paths
FUTURE FORWARD SCHOLARSHIP PROGRAM (F²SP) GRANT
Support STEM students to complete Associate in Applied Science degrees to enter the workforce or Associate in Science degrees for transfer to four-year institutions

Focus STEM recruitment on underrepresented populations at Del Mar College including women, Hispanics, differently abled students and Veterans

Provide academic and social support

Actively engage academically talented and financially needy students in STEM related extracurricular activities

NSF S-STEM grant $600,000 3 years
F²SP INFORMATION

- Supports 22+ students each semester/academic year
- Awards up to $3,000 per student each semester
- Award amount based on unmet need as determined by Federal financial aid (www.fafsa.gov)
- Eligible majors include:
  - Biology (non-medical fields), Chemistry (non-medical fields), Computer Information Systems, Biotechnology, Computer Science, Electrical Engineering, Engineering Technology, Geology, Mathematics, Mechanical Engineering, and Physics
HSI STEM SUCCESS INITIATIVE GRANT
HSI STEM SUCCESS INITIATIVE GOALS

- Informational outreach and recruitment activities at regional public school systems and inform Del Mar College students about STEM programs
  - Increase enrollment of first-time college students in STEM majors
  - Increase number of STEM degree completions
  - Establish new and enhance existing transfer and articulation agreements with 4 year institutions
- Actively track students in STEM majors through to Associate degree completion and assist completers with transfer to a 4 year institution
- Provide students extensive STEM advising and educational support
  - Improve retention, completion, and transfer rates with Supplemental Instruction (SI) and tutoring services to STEM majors
- STEM advisors will be physically located in their respective departments to provide direct access by students to specific STEM discipline information and career guidance
HSI STEM SUCCESS INITIATIVE GOALS

- Facilities and Faculty
  - Enhance student learning facilities with updated labs through renovations and construction
  - Provide instructional redesign and professional development services for STEM faculty to improve instructional strategies
  - Incorporate technology in the classroom to enhance student engagement and learning activities

DOE HIS STEM SUCCESS grant $800,000+/ year for 5 years
QUESTIONS?

Thanks.

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