2006 Corpus Christi Prefreshman Engineering Program (CCPREP)

PROGRAM INFORMATION

CAMPUS
Del Mar College East Campus, 101 Baldwin

DATES
Thursday, June 1 to Wednesday, July 26, 2006 (July 4 is a holiday)

HOURS
CCPREP will be held Monday through Thursday from 12:00 PM to 5:00PM. Field Trips will be scheduled for Friday Mornings.

FACILITIES
All program activities, except for field trips, will be at Del Mar College East Campus. CCPREP staff will be available to help with research, projects and homework, if needed. Students will have access to the library, cafeteria and gymnasium.

COST/FINANCIAL ASSISTANCE
No tuition or fees will be charged for CCPREP. Each student is expected to provide his/her own transportation between home and CCPREP. Each student is expected to provide his/her own transportation from home to the Friday field trip locations except for the NASA field trip in which a charter bus will be used. Each student will need to provide writing materials.

COURSES FOR FIRST YEAR CCPREP

Logic and its Application to Mathematics:

Compound statements, truth tables, elementary set theory, Boolean algebra and switching networks.
Introduction to Engineering:

Lecture and Laboratory class with the following topics: The Engineering profession, measurements, simple mechanics, work-energy and engineering design; in-class and laboratory demonstrations of engineering principles; and team design of bridges, towers, and gliders.

Introduction to Computer Science:

Introduction to computers; explanation of basic hardware and software applications; solving problems by developing algorithms and using flow charting; use of C++

Topics in Problem Solving (Seminar):

Numerous and varied experiences with problem solving as a method of inquiry and application so that students can: use problem solving approaches to investigate and understand mathematical content, formulate problems, develop and apply a variety of strategies to solve problems, verify and interpret results, generalize solutions and strategies to new problem situations, and acquire confidence in using mathematics meaningfully.

Research and Study:

Work on assignments and projects: consultations/tutoring with instructors.

Career Awareness:

Invited speakers from local and state high technology industries will discuss professional engineering and science opportunities, their own work, and a biography of their professional development; special technical presentations and field trips.

FINAL GRADES WILL BE COMPUTED USING THE FOLLOWING WEIGHTING:

Logic = 50%
Engineering = 20%
Computer Science = 20%
Problem Solving = 10%
CCPREP GRADING SCALE

A+  100.00-99.00 (Outstanding)
A+  98.99-98.00 (Honors)
A   97.99-93.00
B   92.99-85.00
C   84.99-75.00
D   74.99-70.00
F   BELOW 69.99

PARENT ORIENTATION

A Parent Orientation session will be held on Tuesday, May 30, 2006 at 7:30 PM the Coles Building, room-227, Del Mar College, East Campus. Attendance is required.

TRANSPORTATION

Students are responsible for their own transportation to and from PREP. Students are responsible for their own transportation to and from field trip locations with exception to the NASA field trip to Houston in which a charter bus will be provided by CCPREP. Parents are encouraged to participate in the field trips.

REQUIREMENTS FOR ELIGIBILITY

1. All applicants must currently be full-time 7th, 8th, or 9th grade students in the greater Corpus Christi area and must complete the academic year by June 1.

2. All applicants must have a B or better average in their academic courses during the academic year and a B or better average in mathematics. All seventh-grade applicants must have an A average overall and in mathematics for the current year.

3. All 9th grade applicants are expected to have completed Algebra I by June 1.

4. Each applicant must fill out and send in a Student Application Form with parent/guardian signature.

5. Each applicant must submit with his/her application a copy of the grade report from the latest reporting period.
6. Each applicant must submit the two recommendation forms from the application packet: one recommendation from his/her current mathematics teacher and one from his/her current science teacher.

7. Each applicant must submit a 100-200 word essay which presents the reasons for the student wanting to participate in the PREP program. This essay is ranked according to content and grammar.

If you have any questions or concerns, please call the CCPREP office at 698-1238.