Abstract

The preponderance of students in the Engineering Technology (ET) department of the University of Houston- Downtown (UHD) does not come directly from High Schools. In fact, they almost all come from other sources, which makes the UHD ET Department an excellent model for obtaining and keeping students from sources other than High Schools. The average age of the UHD student is just under 30 years old. The UHD is one of the most diverse Universities in the country. Students in the UHD ET Department come from community colleges, junior colleges, proprietary schools, the military, international sources, a lot from industry, and from the University General College at the UHD itself. A discussion of how students are recruited and retained from each source is given.

Methods for attracting and keeping students are discussed. Included are the project team and industry connections through the professional societies that include the ISA, IEEE, SPED (Society of Piping Engineer and Designers). In addition, a discussion is included about the interaction with counterparts at other colleges through visits, and through chair and membership positions of UHD ET faculty on advisory committees at other area colleges. In addition, a discussion is given that shows that consulting work in local industry strengthens recruiting and retention efforts. Networking by UHD ET graduates that recommend the UHD ET programs to their others is also discussed. It is shown how membership in area societies for example the Gulf Coast Electronics Instructors Association, a conglomerate of about 50 Gulf coast, Houston, Texas area schools, obviously strengthens recruitment ties.

Finally, methods of requirement of students from within the UHD, from the University General College, are given that include visitations to classrooms, open houses, and participation in UHD activities.

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Students come to the University of Houston-Downtown (UHD) Engineering Technology (ET) department from other schools, industry, and from networking. Very few come directly from high schools. The typical student is mature, working in a related job, and desires to attend school part-time. For quite a few students part-time, however, may be half a full-time load or more. Some students may even take a full-load and work full-time. Very few though are only going to school full-time.

The courses of the UHD ET department are mainly at in the evenings and on Saturdays. This allows the UHD ET programs to attract and retain the students that are employed. Often financial aid does not cover the entire cost of school so students that are working often have the employer defray most of the cost. If the employer does pay for schooling the salary of the student covers the tuition. Many students in the UHD ET department have had to leave another school that had course schedules that made it difficult to work and attend school. The typical financial aid is also available to the UHD ET student. In addition, scholarships are available through Houston industry. Financial problems that often cause the student to leave school are not present that often for the UHD ET student.

The UHD ET department works closely with local industry. Often employee that are completed some education beyond high school are attracted to UHD ET programs. ET programs flyers that describe the program content are distributed to the local industry. Often UHD ET program graduates working in a company are recommending the UHD ET program to colleagues. Supervisors impressed with the UHD ET graduate are also recommending that other employees attend the UHD ET programs courses.

Some of the students attending the UHD ET program courses already have a four-year degree and want to update and expand their education. Up to date, interesting courses attract new students that want to continue their education, as well as help to retain the current student already enrolled in the programs. Adjuncts at the UHD ET are personnel from industry that have the latest field expertise. Use of these industry experts helps the retention of students.
Many of the UHD ET students come from the military, which has many schools and training programs. Although it is often not feasible to give direct one-to-one credit for many military courses a culmination of courses may used to give credit. This process of using a culmination of credit often attracts other former military personnel that are the acquaintances of the students from military. It should also be noted that many of the students from the military have financial aid to help defray expenses and help them stay in school.

Another source of students for the UHD ET programs is the proprietary school. The proprietary school often has six month to two-year programs. The courses in these type schools are not usually transferred one-to-one, but as in the case of the military schools are looked at in a macro view. The culmination of credit from a proprietary two-year degree is considered to give credit. The information is passed along and many two-year program graduates of the proprietary schools come to the UHD ET programs.

The UHD ET department has close contact with professional societies, which helps to attract and retain students. The UHD ET Instrumentation, Systems, and Automation Society (ISA) student chapter plays an important role to the student member. The UHD ET Institute of Electrical and Electronics Engineers (IEEE) Student organization has had many guest speakers, field trips to industry, and students active in the local IEEE meetings. The Society of Piping Engineers and Designers (SPED) has closes ties to industry and many of the industry members of SPED hire the UHD ET graduates. All of these professional societies help to strengthen the student ties to the UHD ET Department, which in turn helps to recruit and retain students.

UHD ET program coordinators and faculty that serve in chair positions and as members on boards of feeder schools, help recruitment. Participation with a board of a feeder school, a school that graduates students that feed into the UHD ET programs, helps to forge bonds with these schools. A UHD ET faculty member of the advisory board of a feeder school is pleased that many potential students became very familiar with the UHD ET programs through the faculty from the feeder school that were fellow board members.. Moreover, membership and contact with the feeder school boards helps to recruit students through the faculty of these schools. Eventually it leads to direct contact with the students of that respective feeder school.
Close contact with faculty of feeder schools leads to direct contact with students of those schools. Through the permission and or invitation of faculty from the feeder schools many UHD faculty have met directly with the students and classes of students at the feeder schools. During the one-on-one or class meetings the UHD ET program flyer, degree plans, and placement information are given. Note that the use of transfer guides often causes a bit of apprehension on the part of personnel from the feeder school that fear their students will not complete their program and go to your school prematurely. A placement guide similar to placement of a person in an employment position is used. In addition, a feeder school student that graduates before going on has shown a responsibility and maturity of accomplishment. The feeder school student that has graduated most likely makes a better student in the more advanced program.

Another way to make contact with faculty and eventually with the students of feeder schools is membership in regional associations. The Gulf Coast Electronics Instructors Association is a conglomerate of about fifty greater Houston, Texas area schools. The twice a year meetings produce contact with the roughly fifty members many of which are personnel from potential feeders schools. UHD ET program materials are made available. In addition, spin-off meetings at the feeder schools are often directly scheduled that lead to direct contact with feeder school students.

Hosting a region seminar at the UHD has lead to direct contact with personnel from industry and faculty from other schools. At a recent seminar sponsored by a national industry about one hundred personnel mostly from industry attended and took the UHD ET program materials that were available. Interest seemed high in the materials that were quickly taken.

Hosting a department general open house has had somewhat limited success, but the results are often difficult to measure. Often a meeting with faculty and students from a feeder school has been more successful and lead to recruitment of students.
Finally, the University of Houston-Downtown itself is source of students for the UHD ET department. While its may seem obvious that some UHD students in general will become ET majors, the number that do so can be greatly increased by giving attention them the proper attention. The University College and general advising are often overwhelmed. If the general advising staff has an ET faculty to represent the ET department, the number of students that major in ET can greatly increase. Participation of ET faculty and student organizations in UHD school wide events can make the UHD student aware of the ET programs that are offered. In addition, meetings in UHD basics classes can help guide the undecided UHD student to major in ET.

References:

2. University of Houston- Downtown Fact Sheet 2000 / 2001
4. Gulf Coast Area Electronics Teachers Association meeting notes Spring, 2000
5. Gulf Coast Area Electronics Teachers Association meeting notes Fall, 2001