Introduction to Electrical Engineering

Assignment #2

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1) Give four factors that influence undergraduate performance.

a) Students do not have pre-college academic preparation, only 6% of minority students graduate from high school with a math-science preparation to enroll in engineering programs.

b) Some students are full-time employed; they take fewer courses per semester that leads to a greater probability of students dropping out. These students may have less of a commitment to their academic studies than a full-time college student.

c) Students’ first year academic performance has an impact on retention. Students who earned a minimum of “B” average after their first college term were more likely to stay in school compared to student who earned an average of “C” or below.

d) First generation college students have higher attrition rates, usually less informed about the process toward college preparation, expectations, and achievement.

e) Involvement in campus activities strongly correlates with student retention, allows the student to focus more on school and have fewer societal pressures outside school.

2) Give 3 conduct characteristics of a successful engineering student.

a) Industrious, every student should be a hard worker to achieve their goals and attain good grades.

b) Persistent in work, study, and life; perseverance is the key to success.

c) Turn in assignments on time; a good student should be responsible with homework and work.

d) Be interested in class topics, if the students have a positive attitude and ask about the lecture they will learn more, therefore get better grades.

3) What is ABET? What is the ABET definition of Engineering?

ABET means Accreditation Board for Engineering and Technology, is a non-governmental organization that accredits post-secondary education programs in applied science, computing, engineering, and engineering technology.

The ABET definition of Engineering- The profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind.

4) What does motivate you in the Electrical Engineering major?

My main motivation to study Electrical Engineering is the fact that I am going to learn ways to find solutions and to have new ideas. The area of Engineering is a creative enterprise, one that requires intense imagination and a significant amount of hard work. In conclusion, engineers are modern day inventors.

5) What does IEEE stand for? What is the core purpose of IEEE?

IEEE stands for Institute of Electrical and Electronics Engineers. IEEE’s core purpose is to foster technological innovation and excellence for the benefit of humanity.

6) Answer to Question 6 of the lab titled “Exploring the IEEE Electronic Database.”

1. IEEE Transactions on Robotics and Automation (2004)
2. IEEE Journal of Robotics and Automation (1988)
3. IEEE Transactions on Aerospace and Navigational Electronic Systems (1965)
4. IEEE Transactions on Military Electronics (1965)
5. IEEE Transactions on Communication Technology (1971)
6. IEEE Magazine of Control Systems (1990)
7. IEEE Microwave and Guided Wave Letters (2000)
8. IEEE Journal on Microwaves, Optics, and Acoustics (1979)
9. IEEE Transactions on Biomedical Circuits and Systems (2012)
10. IEEE Transactions on Circuits and Systems for Video Technology (2013)
11. IEEE Transactions on Power Apparatus and Systems (1985)