Is There A Need To Teach Professionalism To Our Freshmen Students?

S. Michael Wells

Abstract

With our increasingly more permissive society, and with less being required of high school students, freshmen engineering students seem to be lacking professional conduct. It is not so much that they are unwilling, as that they are unknowledgeable about how they should behave in a university classroom or lab environment. In a survey conducted among freshmen at Tennessee Tech University, one hundred and eleven engineering students were asked their views about various aspects of professionalism. Questions were raised about punctuality, classroom conduct, appropriate interaction with the instructor both in and out of the classroom, appropriate interaction with other students, attitudes toward cheating, and general etiquette. Industrial supervisors and human resource managers were also consulted concerning the need to teach professionalism, and the level of professionalism they observe in recent graduates entering the job market. They were asked whether graduates that conduct themselves in a more professional manner are more likely to be hired, and succeed on the job. Some of the likely causes for a decrease in professional conduct among students are explored; the negative effect poor professional habits have on the students and our society are examined; and possible solutions are proposed.

Defining Professionalism

As part of the emphasis of ABET to address social an environmental areas [1], Criterion 3, Programs and Assessment requires accredited engineering programs teach professionalism. This is listed as outcome (f), which states that graduates should have “an understanding of professional and ethical responsibility.” But the specifics of what outcome (f) means and how it is to be implemented are left to the discretion of the individual engineering colleges. Therefore, we must first determine how we would define professionalism, and then we can go about the task of establishing a strategy for how it might be taught and how to assess and evaluate our progress.

The Merriam-Webster dictionary defines the word professionalism originated in 1856 [2]. It defines it as “the conduct, aims, or qualities that characterize or mark a profession or professional person.” Webster defines professional, which came into use as an adjective in the 15th century, as “characterized by or conforming to the technical or ethical standards of a profession.” It was in 1811 that professional was first used as a noun to describe a person as “one that is professional…”

In order to understand the meaning of professionalism, we must look to the word profession, which first came into use in the 13th century. Webster gives several definitions, some with religious and other overtones, but only two relate to engineering and are pertinent to our discussion here. The older, and more traditional of these two is “a calling requiring specialized knowledge and often long and intensive academic preparation.” It is this definition which would apply to our goal of meeting ABET's requirements.
The second definition of profession has evolved into our language in recent times, and is nearly at odds with the traditional one. It states that profession is “a principle calling, vocation, or employment.” The difference in these definitions must be underscored. One states that a profession requires much by way of education of those practicing it. The other essentially defines profession simply as one’s job or livelihood.

It may be that this latter definition, which has largely replaced the traditional one, is at the center of the problem that has prompted ABET to recognize the need for us to teach professionalism. Until just a few decades ago, the term profession was only used to refer to the practice of medicine, engineering, or other fields requiring a high level of education. Now, virtually anyone who is employed might be referred to as a “professional.” It is not uncommon to hear such phrases as “professional landscaper,” “professional hair stylist,” or “professional athlete.” While there is nothing wrong with any of these vocations, they do not require intensive academic preparation or specialized knowledge required by a true profession. As it becomes more prevalent in our society to use the word professional as a synonym for “employed,” the more the traditional concept of a professional, and thus professionalism, fades from the public’s mind. It is perhaps because of this that ABET has judged it appropriate that we emphasize, if not reintroduce, the concept and practices of professionalism in our engineering colleges.

Even so, defining precisely what professionalism means is not altogether easy. In the literature, many use words such as “ethics” and “altruism” to describe professionalism. But others insist that “…attributes of professionalism can be learned, but they can’t be taught [3].” Ideally, each profession should define professionalism by establishing a formal code of conduct for its members. Such a code would certainly address ethical and social issues, and also give at least some standards in the area of professional etiquette.

Perhaps because its members are more intimately engaged with the public, and because the nature of their work often has more immediately serious, dramatic, and personal consequences to those they serve, the medical profession has made considerable effort to address the subject of professionalism. They have had a foundation in the Hippocratic Oath. Those in the profession say its simplicity makes it a powerful tool for creating “professionals [4].” The essence of this pledge is that “the physician serve the interests of the patient above his or her self interest [5].” That one charge, followed faithfully and diligently, results in a keeping of the codes of honesty, work ethic, etiquette, and virtually all other aspects of professionalism. Perhaps we in engineering should seek a similar code for our own profession. The difference would be that the engineer would serve his client or his company rather than a patient.

**Professionalism Today**

While many argue that the attribute of honesty, as it applies to professionalism, is difficult to measure or teach, other aspects such as etiquette, work ethic, and respect are more readily apparent. To see if leaders in industry agree there is a decline in these areas, contact was made with engineering managers, human resource managers, and chief engineers in the middle Tennessee area. They were asked to rate as *poor, acceptable, or good* the qualities of *etiquette, work ethic, honesty, human relations skills, thoroughness, and punctuality* for their engineering employees. They were also asked to comment on whether they believed there was an up or down trend in professionalism in the engineering workforce.

Without exception, all said they were seeing a downward trend. The negative attributes most often cited were weakness in etiquette and interpersonal relations. However, the attributes of work ethic and punctuality were also lacking, and seemed to especially disturb those reporting those weaknesses. One chief engineer of thirty years experience, saw incoming engineers “as wanting a position of employment, but not being interested in doing the work [6].”

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One engineering manager saw the negative trend in professionalism due in part to a drop in company loyalty among young engineers. He quickly added, however, that companies, too, are not as loyal to their work forces as they once were. His perspective was that the business community’s negative influence was much to blame.

Those reporting a greater degree of satisfaction with the professionalism of their engineers also stated that they were very selective in their hiring practices. They gave credit to that as the reason for their having a professional work force. In fact, human resource personnel are often trained to detect the level of professionalism of candidates in job interviews [7]. This is one incentive we can pass on to our students when trying to teach them professionalism.

Professionalism among our engineering students has a different dynamic than the work place. Certain deficiencies in professionalism are worse in college classroom for several reasons. First, because the students are younger and less experienced and many simply do not know what constitutes good or bad manners or work habits. As they get older and gain experience, they have greater exposure to other professionals, which allows them to learn through interaction and example.

Second, there is not as much incentive for students to behave professionally, at least in certain aspects, as there would be in the work place. A student who comes in late to a lecture, or who misses it entirely, will not necessarily see an effect on his grade. But an employee who comes late to work, or who misses work altogether, will almost certainly see a negative reaction from his employer. This could range from a reprimand to eventually losing his job—certainly an incentive to show up to work on time.

Third, there is an increasing trend toward students thinking they are “special.” This carries with it several negative consequences. One is that they believe the degree should come easily [8]. As educators, how many of us have had conversations with discouraged freshmen who had good grades in high school and now find they are foundering at the college level? But it is no wonder. The high school experience has contributed greatly to their confusion about what is required for excellence. From 1969 to 1997, the number of “A’s” awarded in high school increased from 12.5% to 31.6% [9], and, unfortunately, this has not come about because the students are working harder. In 1987, 44% of high school students claimed to spend more than six hours per week studying. By 1999, that figure had dropped to 31.5% [10]. Even more disturbing is the increase in cheating on college campuses, and the fact that the problem is greatest among engineering and business majors [11].

Without a doubt, cheating and an unwillingness to work sufficiently are the two most serious violations of professionalism among students. While the latter may be overcome when the students learn from their experience that laziness does not pay, the former may or may not be teachable. For both, we generally depend on our system of testing and grading to identify and dismiss those unwilling to work sufficiently and honestly.

Engineering students, as well as engineers in the work force, do not seem to rate well in the areas of human relations and etiquette. Indeed, many of us [8] have seen a decline in this in our students during the last decade. There now appears to be more incidents of students coming in late, talking during lecture, climbing over furniture, sitting in hallways and refusing to move their feet for passersby, and showing disrespect for faculty and their peers than ever before.

However, the news is not all bad. As seen in Table 1, a poll conducted among 111 freshmen indicate a large number of these students were aware of the poor social skills and unprofessional behavior of many of their peers.
Table 1. Students' Observations of Unprofessional Behavior Among Their Peers

<table>
<thead>
<tr>
<th>Behavior Observed</th>
<th>Percentage of Students Stating Such Behavior is Unprofessional</th>
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<tbody>
<tr>
<td>Being loud in class</td>
<td>31.5%</td>
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<tr>
<td>Being rude or disrespectful to faculty or other students</td>
<td>31.5%</td>
</tr>
<tr>
<td>Not being on time to class or lab</td>
<td>27.9%</td>
</tr>
<tr>
<td>Cheating on tests or homework</td>
<td>21.6%</td>
</tr>
<tr>
<td>Being unprepared for class</td>
<td>21.6%</td>
</tr>
<tr>
<td>Not showing up for class</td>
<td>17.1%</td>
</tr>
<tr>
<td>Not being responsible (in teamwork)</td>
<td>16.2%</td>
</tr>
<tr>
<td>Sleeping during lecture</td>
<td>15.3%</td>
</tr>
<tr>
<td>Not being attentive in lecture</td>
<td>13.5%</td>
</tr>
<tr>
<td>Horseplaying in class</td>
<td>11.7%</td>
</tr>
<tr>
<td>Walking out of class or disrupting class with use of cell phones</td>
<td>8.1%</td>
</tr>
<tr>
<td>Not being organized for class or lab</td>
<td>7.2%</td>
</tr>
<tr>
<td>Purposely damaging University property</td>
<td>4.5%</td>
</tr>
<tr>
<td>Unprofessional dress or appearance</td>
<td>3.6%</td>
</tr>
<tr>
<td>Openingly blaming others for their failures</td>
<td>2.7%</td>
</tr>
<tr>
<td>Not doing quality work</td>
<td>1.8%</td>
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</table>

**Conclusion**

In answer to the question of whether we should be teaching professionalism to our students, the answer is yes. Not only is it mandated by ABET, but the need is there to protect the integrity of the engineering profession. If we do not consciously impart a sense of professionalism to our students, we do them a disservice. It can hurt them in finding a job and in progressing in their careers. We also risk hurting our own standing as educators when employers of former students of our universities judge us derelict in our duty to teach professionalism. It can reflect poorly on our institutions.

Traditionally, students attended universities rather than trade or technical schools for the cultural education, as well as the technical knowledge. For these reasons, employers were willing to provide greater rewards to those students who had completed a university education. People who are professional are much in demand because they contribute toward making a better company. And, perhaps just as important, they make the experience of their superiors and co-workers more pleasant.

While the trait of altruism is the single most defining and desirable characteristic of professionalism, it is perhaps also the most difficult, if not impossible, to teach. Yet out of it springs forth a desire to be ethical in one’s conduct, a strong work ethic, an interest in acquiring and practicing human relations skills, and all the other appealing attributes of a true professional.
In struggling with the question of the most appropriate way to teach professionalism to students, the value of a good example by the instructor is often stressed [12]. If the instructor conducts the course and the class in a very efficient, effective, and pleasant manner, it can help the students gain an appreciation for professionalism. Teaching the value and skills of good communication are also important [13]. When the instructor gives a lecture, writes a syllabus, and defines assignments, this should be kept in mind.

Finally, the value of professionalism might be emphasized very strongly by actively teaching it and assigning a grade to it. The first two weeks for freshmen are especially critical, for it is then that enthusiasm for the new experience of being in college is perhaps highest, and inferences are formed about the value we place on professionalism.

References


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S. Michael Wells

S. Michael Wells is an Assistant Professor of Basic Engineering at Tennessee Technological University. He received the BS degree in Electrical Engineering and the MS degree in Industrial Engineering from the University of Tennessee. He has taught engineering success skills, computer programming, engineering graphics, and various industrial engineering courses since 1980. His current research interests are in student motivation and retention.