Why Are You At The University?

A Question to Engineering Students by C. A. Norman, Professor of Machine Design.

Why are you at the University? Why are you spending two to four thousand dollars of your old man's money, or spending weary hours behind the shirt counter or the soda fountain to get thru, rather than being out and earning an honest living? What good will it do you? Will it do anything else than turn you into a sluggard and a loafer, unalterably four years behind the man who has taken life by the forelock immediately on graduation from high school?

Can you answer? Are you here for any set purpose, or is that purpose simply to get a degree?

To be sure, a degree is a good thing. It makes you eligible for an apprenticeship in certain big undertakings where without it you would not be admitted. But who, do you think, cares about your degree, after you have been out of college a year or two?

If you get nothing more from your college course than a degree, you are a loser, and your country has lost four years of your working life. You are that much in debt.

How can you make up for it?

The answer is: Get an attitude towards life. Learn to take nothing on hearsay, learn to take nothing except on the basis of carefully proved fact. That is the first thing. The world is full of people who go by hearsay and impressions; it is full of people who are swayed by the first phrase. The charlatan and the spellbinders are the gainers. Don't you be in the class of weather vanes. Learn to distinguish between truth and empty belief. Learn to call the other fellow's bluff, where his statement is clearly controverted by cool scientific reasoning.

That is one thing; but it is not the whole thing and it is not the main thing.

The engineers may be mighty good scientific reasoners and yet have no standing at all when compared with the lawyers or the doctors.

Why?

Because these men stand on their own basis, because they face the world in their own name, because they themselves are responsible for their actions, because in all their business dealings they deal directly with other men and deal from motives and on principles for which they themselves are responsible.

Not so the majority of engineers. You graduate—you enter the service of a big corporation. Your business may be to manufacture quack medicines. You don't believe in quack medicines, but your employer pays you to help him in producing them—and you produce them. What is more, the higher you rise, the more you may be expected publicly and openly to fight for and advocate what you know to be worthless, or perhaps even harmful.

This is an extreme case. But there are other more subtle ones. You believe that a fair wage and a reasonable working day lead to better results than a low wage and an over-long working day; but your employer believes in small pay and long hours, and you are supposed to stand up for that point of view, or get out. You, as an engineer, are fully convinced that your employer's product is wasteful, wrong or antiquated, but you are expected to continue to manufacture it and defend it as long as it can possibly be sold. You are expected to deny the value of the other man's product, even though you know that it is better than yours.

Some of these things are unavoidable. The great bulk of American business is conducted on the basis of an honorable method and an honorable product; but it is a tremendously difficult thing to keep any business consistently profitable. It requires every ounce of the energy of many strong and resourceful men, and as the world is constituted today, it may not be possible to run a business simply as a public service. But for you, as engineers, the humiliating and degrading thing is that, no matter whether your employer is right or wrong, your policies are dictated for you, your business attitude and often your attitude on public questions of great importance, are dictated for you and that you have to follow the other man's lead whether you approve of it or not. A man in such a position does not present a very impressive spectacle, no matter how efficient a servant he is. Now, engineers are beginning to realize this and are getting together to remedy things. They recognize that every mechanical appliance—from a plow and a cultivator to a 16-inch gun—are produced by engineers, and they demand that at last the engineers shall have something to say about how these things are to be used. If the engineers are to be servants—very good, let them be servants—but let them be the servants of their nation and of their community, not only of individual men. Let them consciously and deliberately give America the means to do her great work in the world—whether to blast the way for democratic ideas at the mouth of cannon as she did in the Argonne forest, or to dry up a swamp at the Panama Canal.

You are in business. You must work through business. Individually you cannot buck business requirements. But standing shoulder to shoulder with your fellows in your profession you can gradually bring the world to see that beyond helping another man to make money, engineers have a greater interest—to help their nation and their communities to accomplish their tasks. But what are these tasks?

To teach you this is the highest object of the college. (Continued on page 11)
Right on this campus there are men who make the study of America's history and America's aim their main interest in life; right here are men whose business it is to study the wherefrom and whither of the human race; right here are men who coldly and dispassionately study all the factors that go to make up a nation's greatness and prosperity; right here you are surrounded by possibilities of securing an outlook and a vision greater than will ever surround you again.

Make use of these possibilities! Get glimpses and vistas. Go to lectures, put on extra courses, become educated men. In so doing you will not only become men on your own basis, but you will contribute to the elevation of your whole profession to that position of leadership to which its services make it entitled.