Engineering Physics vs. Physics

Engineering (Engineering Physics) innovates. Science (Physics) discovers. Engineering is sometimes called applied science: it sits between science and technology. Science can be lofty. Engineering tends to be down to earth. Scientists experiment. Engineers invent things to help others. Scientists ponder. Engineers imagine. Both love to solve puzzles. Scientists like to understand how nature works. Engineers want to improve the world. Scientists write papers and books. Engineers make money. Scientists love to peek inside nature, seeking to delicately uncover new ways in which our universe works. Engineers are more interested in saving the world. While there is significant overlap, scientists and engineers approach things a little differently. They have somewhat different goals. Their professional standards differ a bit. They form different cultures. Both dream.

In the last century new ideas came to market slowly. It often took a generation for novel concepts to become a part of every day life. Those nations that did this better became stronger economically, militarily and socially, than those nations that did not. It is difficult to imagine a nation that can compete effectively in the areas of communications, business, health, environment, energy, and security during the next century without strong science and technology. Those students who are well prepared for the next century are in the best position to become the leaders of the next generations.

Our goal in the School of Science and Engineering at Tulane is to educate our students in both science and engineering to be quicker and better than students of the last century. We are trying to cut down the lag time between discovery and innovation. The way to drive innovation is to bring cutting edge science and the people who are doing design closer together. We believe that an interdisciplinary approach to science and engineering that enhances the depth of excellence of these fields gives our graduates an advantage over graduates of other, sometimes larger, universities who train their students more traditionally. In our unique department of physics and engineering physics, we offer two distinct majors – physics and engineering physics. One major is in science and the other in engineering. While the two curricula differ, a number of classes are the same so that our scientists and engineers come into daily contact and learn from one another.