

## **Preparation for Graduate and Professional Study**

### **Engineering Programs**

While John Carroll University does not offer a degree in engineering, students interested in engineering have the following options. (1) They may complete an appropriate B.S. degree in either chemistry, physics, engineering physics (with specialization in either electrical engineering or computer engineering), or mathematics. Students may elect to take additional engineering courses at Case Western Reserve University and other colleges and universities participating in the Northeast Ohio Commission on Higher Education Cross-Registration Program and then enter an engineering school for a master's degree in a particular field of engineering. (2) They may choose to complete two years of pre-engineering at John Carroll University and then transfer to Case, to the University of Detroit Mercy, or to another engineering school to pursue a degree in engineering. (3) They may choose the joint-degree program available with Case.

Formal agreements have been made to enable students who complete the two-year pre-engineering program at John Carroll to transfer either to Case or to the University of Detroit Mercy, if the minimum continuation requirements set down by each university are met. Case offers a wide variety of engineering programs which have a national reputation. The University of Detroit Mercy has unique co-op engineering programs where students are required to alternate between engineering study and industrial work periods. They must take their first work period in the summer after sophomore year if they wish to graduate at the end of the summer after their fourth year. Students can earn a good portion of their expenses from employment in the co-op program.

The joint-degree science/engineering program (Binary Program, 3-2 Program) consists of three years at John Carroll as a science major followed by approximately two years at Case as an engineering major. The Binary Program is for students who want to combine a solid arts and sciences foundation with technical study in astronomy, biochemistry, or an engineering discipline. This program leads to two bachelor's degrees: one from John Carroll in science, and the other in engineering from Case.

A minimum grade point average of 3.0 (B) is required for participation in the Binary Program. A GPA of 3.0 (B) in science and mathematics courses is also required.

Students interested in any of the above engineering programs should call the Department of Chemistry or the Department of Physics as early as possible and ask to speak to the engineering advisor.