BIOMEDICAL ENGINEERING
Whitaker Foundation
INTERNSHIPS IN INDUSTRY
Louisiana Tech University

GOALS FOR STUDENT INTERNS

X Knowledge of the industrial environment
   X Information Management
   X Research and development
   X Marketing
   X Business practices
   X Manufacturing
   X Quality control
   X Management

X Experience in investigating, analyzing, and reporting a medical product design, development, or distribution problem

X Enhancement of professional communication skills

X Understanding of professional engineering ethics

X Improved academic performance, critical thinking, creative problem-solving, and career satisfaction

BENEFITS TO INDUSTRIAL SPONSORS

Students offer:

X Completion of specific engineering tasks

X Results, products, innovations

X Enthusiasm and new ideas

On-going program offers:

X Cost-effective recruiting and screening program

X Positive campus relations
Development of supervisory and training skills by company mentors

QUALIFICATIONS OF STUDENT INTERNS

Two years of engineering and science courses
- biomedical engineering
- biological science
- engineering mechanics

Good academic standing (2.8 GPA or company minimum)

EXPECTATIONS FOR INTERNSHIP SPONSORS

Provide appropriate intern position for 10-12 consecutive weeks, 40 hours per week
Provide a company mentor (engineer) to guide and evaluate the student
Prepare a mutually developed statement of company and educational goals
Support of student
- Stipend to student from grant for one to two years (relocation expense)
- Company support student in subsequent years

SCHEDULE

Fall: Recruitment of industrial sponsors
February 1: Companies respond
February 15: Industrial sponsors posted
March 1: Students submit resumes (and goals)
April 1: Sponsors select interns (telephone, on-campus, or on-site interviews)
June 1: Internships begin
Students submit progress reports (weeks 3, 6 and 9)
BIOMEDICAL ENGINEERING ACADEMIC PROGRAM
AT LOUISIANA TECH UNIVERSITY

CURRICULUM
* Emphasizes engineering fundamentals, basic life sciences, and broad biomedical engineering principles
* Specialization areas:
  * Chemical Engineering
  * Mechanical Engineering
  * Electrical Engineering
  * Pre-Medical

ACCREDITATION
* Nationally accredited by Accreditation Board for Engineering and Technology (ABET)

SENIOR COURSES
* Biomaterials and Biomechanics
* Biomedical Mass Transport
* Advanced Biomedical Instrumentation
* Physiological Control Systems
* Capstone Design Project (two quarters)

EMPLOYERS OF TECH GRADUATES
* Medical Instrumentation Companies (e.g. Siemens, Medtronics, Mallinckrodt)
* Orthopedic Device Companies (e.g. Richards Medical, Sofamor Danek, DePuy)
* Hospital Products Companies (e.g. Baxter Healthcare, Abbott Laboratories, Burron Medical)
* Pharmaceutical Companies (e.g. Boots Pharmaceutical)
* Aerospace Life Science Companies/Divisions (e.g. Wyle/Krug Life Sciences, Bionetics, General Electric, McDonnell Douglas)
* Governmental Research and Regulatory Agencies (e.g. NASA, FDA, U.S. Army Biomedical R & D Lab)
* Private Research Organizations (e.g. Southwest Research Institute)
* Hospitals (e.g. Veteran's Administration and other private hospitals, General Electric Medical Systems contract services)

EMPLOYMENT RESPONSIBILITIES
* Research (basic and applied)
* Product Design and Development
* Manufacturing
* Quality Control
* Marketing and Sales
* Engineering Management

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