

BIOMEDICAL ENGINEERING AND MEDICINE DUAL DEGREE PROGRAM

Doctor of Philosophy (Ph.D.) Degree in Biomedical Engineering and Doctor of Medicine (M.D.) Degree in Medicine

DEGREE INFORMATION

Program Admission Deadlines:

Fall: November 1

Spring: No Admit

Summer: No Admit

Minimum Total Hours: 90/

Program Level: Doctoral/Professional

CIP Code: 14.0501

Dept Code: ECH

Program (Major/College): EBI EN

CONTACT INFORMATION

Colleges: Engineering/Medicine

Departments: Chemical & Biomedical
Engineering; Medicine

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The objectives of the M.D./Ph.D. program are: 1) produce highly trained professionals who can work effectively in the area of Biomedical Translational Research, more specifically, Engineer-Physicians who can conduct research in a Biomedical engineering area that addresses a significant clinical problem, and bring that research through to clinical application; and 2) provide an integrated educational experience leading to both the M.D. degree and the Ph.D. (BME) degree. In order to accomplish the first objective, advances in health care increasingly involve the application of emerging science and technology (i.e., engineering) to clinical problems, including problems in diagnostic treatment and the healthcare system itself. Unlike more basic research that often aims to increase science and technology knowledge in itself, translational research seeks to specifically address the science and technology needed to solve problems with the end goal of creating an actual application or product (of course, adding new significant knowledge in the process). In order to conduct effective biomedical translational research, the investigator must be trained in both clinical science (i.e., the M.D. degree) and engineering (specifically, Biomedical Engineering). This program seeks to provide an integrated experience where the student participates in both the medical/clinical and engineering worlds simultaneously.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Biomechanics, Biomaterials, Cellular and Tissue Engineering, Cardiovascular Engineering, Rehabilitation Engineering, Neuroengineering

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program. Students must satisfy the requirements for the two degrees separately. Refer to the individual program listings for the specific requirements for each degree.

Program Admission Requirements

Students apply for the BME degree through the Graduate School; Students apply separately for the M.D. degree through the College of Medicine. Admissions are on the same time schedule as that for general M.D. students. Applicants should contact a program advisor prior to application. For specific admission requirements, refer to the Ph.D. in Biomedical Engineering program page in the Graduate Catalog and refer to the M.D. program requirements in the College of Medicine.

DEGREE PROGRAM REQUIREMENTS

For specific degree requirements, refer to the Ph.D. in Biomedical Engineering program page in the Graduate Catalog and to the curriculum requirements for the M.D. as posted by the College of Medicine.

This is a seven (7) year program. Students initially complete a non-thesis M.S. in Biomedical Engineering, then proceed to complete the first three (3) years of the Medical School Curriculum. The following two (2) years focus on the Ph.D. requirements, specifically the completion of coursework, qualifying exams, and dissertation research. In the seventh (7th) year, students complete the fourth (4th) year of Medical School and also complete any Ph.D. requirements as needed. Students must have at least one publication in an appropriate peer-reviewed journal prior to graduation.

Other Requirements

Students establish a Graduate Committee immediately after starting the program, with members from both Engineering and Medicine. This committee guides the student through the program until a formal Ph.D. committee is established, typically in year four or five.

COURSES

See <http://www.ugs.usf.edu/sab/sabs.cfm>