

Biomedical Engineering Degree Plan – Medical Physics

First year BME students take 12 credit hours in the fall and spring, and 6 credit hours in the summer. In subsequent years they are enrolled in 9 credit hours in fall and spring, and 6 credit hours in the summer. Typically, didactic course work is completed in the first two years, and in subsequent years students are enrolled for research, seminars or journal clubs totaling full-time enrollment equivalency. Advancement of the student to Ph.D. candidacy is dependent upon passing the qualifying examination (Exam I), which generally takes place in the second year. A typical degree plan for students with a research focus in Medical Physics is shown below. Additional Advanced Elective courses can be taken with permission from the student's research supervisor.

Year	Term	Title	Credit Hour	Total Credit Hrs/Term
First Year	Fall	Professionalism, Responsible Conduct of Research, and Ethics I	1	
		Fundamentals of Imaging in Medicine	3	
		Laboratory Rotations	8	Semester Total: 12
	Spring	Professionalism, Responsible Conduct of Research, and Ethics II	1	
		Radiation Protection and Safety	3	
		Human Anatomy and Physiology	3	
		Laboratory Rotations	5	Semester Total: 12
Summer	Research	6	Semester Total: 6	
Second Year	Fall	Works in Progress in Biomedical Engineering	1	
		BME Exam 1 Preparation Course	1	
		Radiation Therapy Physics	3	
		Research	4	Semester Total: 9
	Spring	Works in Progress in Biomedical Engineering	1	
		BME Exam I (Qualifying Exam)	1	
		Radiological Physics and Dosimetry	3	
		Radiobiology	3	
		Research	1	Semester Total: 9
	Summer	Dissertation Research	6	Semester Total: 6
Third Year	Fall	Works in Progress in Biomedical Engineering	1	
		Introduction to Medical Physics Clinical Rotation	3	
		Dissertation Research	5	Semester Total: 9
	Spring	Works in Progress in Biomedical Engineering	1	
		BME Exam II (Dissertation Proposal)	1	
		Dissertation Research	7	Semester Total: 9
	Summer	Dissertation Research	6	Semester Total: 6
Fourth Year & Beyond	Fall	Works in Progress in Biomedical Engineering	1	
		Dissertation Research	8	Semester Total: 9
	Spring	Works in Progress in Biomedical Engineering	1	
		Dissertation Research	8	Semester Total: 9
	Summer	Dissertation Research	6	Semester Total: 6
Minimum Credit Hours for PhD 102				

Advanced Elective Courses (Partial List)	Credit Hour	Campus	Course #
Biostatistics	3	UTSW	CTM 5391
Metabolic Imaging of Disease	3	UTSW	BME 5375
Basic Principles of MRI	3	UTSW	BME 5374
Biomedical Image Processing	3	UTD	BMEN 6395
Engineering Systems Modeling and Simulation	3	UTD	BMEN 6372
Tissue Optics	3	UTA	BE 5327

For more detailed descriptions and additional listings of courses available, see the UTSW course descriptions webpages or the websites below.

http://www.utdallas.edu/student/catalog/gradcurrent/ECS/BME/coursedescriptions_biomed.htm

<http://catalog.uta.edu/engineering/bio/>