



Biomedical Technology Program Proposed Curriculum 138 Credit Hours*

Year 1		1 st Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	CT 101	Computer Skills	3	2	2	0	4	
2	CUR 101	University Skills	3	3	0	0	3	
3	EPH 101	Fitness and Health Culture	1	0	2	0	2	
4	STAT 109	Biostatistics	3	2	2	0	4	
5	ENGL 107	Academic English for Health Sciences -1-	6	6	0	9	15	
Total			16	13	6	9	28	

Year 1		2 nd Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	ZOOL 109	Biology	3	2	2	0	4	
2	PHYS 109	General Physics	4	3	2	0	5	
3	CHEM 109	Introduction to Organic Chemistry	3	2	2	0	4	
4	ENGL 114	Academic English for Health Sciences -2-	6	6	0	9	15	
Total			16	13	6	9	28	

Year 2		3 rd Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	CLS 224	Basic Anatomy & Physiology	3	2	2	0	4	
2	ARAB 103	Expository Writing	2	2	0	0	2	
3	Math 218	Differential Calculus	4	4	0	2	6	
4	BMT 201	Applied Physics	3	2	2	0	4	
5	BMT 213	Electrical Circuits	3	2	2	0	4	
6	BMT 241	Computer Programming	2	1	2	0	3	
Total			17	13	8	2	23	

Year 2		4 th Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	IC 106	Medical Jurisprudence	2	2	0	0	2	
2	Math 228	Integrals Calculus	4	4	0	2	6	
3	BMT 214	Introduction to Electronic Devices	3	2	2	0	4	
4	BMT 230	Introduction to Biomechanics	3	2	2	0	4	
5	BMT 251	Biomedical Sensors & Measurements	3	2	2	0	4	
6	ME 200	Intro. to Engineering Design and Graphics	3	1	4	0	5	
Total			18	13	10	2	25	

Year 3		5 th Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	Math 318	Differential Equations	4	4	0	2	6	
2	BMT 316	Biomedical Integrated Circuits	3	2	2	0	4	
3	BMT 331	Mechanics of Materials	2	2	0	0	2	
4	BMT 332	Biomaterials	2	2	0	0	2	
5	BMT 352	Diagnostic Medical Equipment	3	2	2	0	4	
6	BMT 371	Biomedical Signal Processing	3	2	2	0	4	
Total			17	14	6	2	22	

Year 3		6 th Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 317	Microcontroller Applications in Healthcare	3	2	2	0	4	
2	BMT 318	Biomedical Control Systems	3	2	2	0	4	
3	BMT 339	Fluid Mechanics	2	1	2	0	3	
4	BMT 342	Internet of Medical Things	2	1	2	0	3	
5	BMT 353	Therapeutic Medical Equipment	3	2	2	0	4	
6	BMT 362	Design in Biomedical Engineering	2	2	0	0	2	
7	BMT 372	Medical Image processing	3	2	2	0	4	
Total			18	12	12	0	24	

Year 4		7 th Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 443	Biomedical Data Sciences	2	1	2	0	3	
2	BMT 444	Health Informatics -1-	3	2	2	0	4	
3	BMT 463	Simulation in Biomedical Engineering	3	2	2	0	4	
4	BMT 481	Clinical Practice / Project -1-	3	0	6	0	6	
5	BMT 4xx	Approved Technical Elective -1-	2	2	0	0	2	
6	BMT 4xx	Approved Technical Elective -2-	2	2	0	0	2	
Total			15	9	12	0	21	

Year 4		8 th Semester		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 464	Biomedical Design and Manufacturing	3	2	2	0	4	
2	BMT 482	Biomed. Innovations and Entrepreneurship	2	2	0	0	2	
3	BMT 483	Health Technology Management	3	2	2	0	4	
4	BMT 486	Clinical Practice / Project -2-	3	0	6	0	6	
5	BMT 4xx	Approved Technical Elective -3-	2	2	0	0	2	
6	BMT 4xx	Approved Technical Elective -4-	2	2	0	0	2	
Total			15	10	10	0	20	

Year 5		Credit	Contact			
Code	Course Title		Lec	Lab	Training	Total
1	Internship Year	0	0	0	**	**
Total		0	0	0	**	**

* Three 2-Credit University Electives included

** Contact hours of the Internship program depend on the training institution

Technical Elective Courses***

Area 1		Biomechanics & Biomaterials		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 433	Structural Aspects of Biomaterials	2	2	0	0	2	
2	BMT 434	Orthopedic Biomechanics	2	2	0	0	2	
3	BMT 435	Cardiovascular Biomechanics	2	2	0	0	2	
4	BMT 436	Cell and Tissue Engineering	2	2	0	0	2	

Area 2		Health Informatics		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 445	Health Informatics-2	2	2	0	0	2	
2	BMT 446	System Analysis and Design	2	2	0	0	2	
3	BMT 447	Healthcare Business Process Reengineering	2	2	0	0	2	
4	BMT 448	Healthcare Data Analytics	2	2	0	0	2	

Area 3		Biomedical Instrumentation		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 454	Advanced Biomedical Devices	2	2	0	0	2	
2	BMT 455	Biomedical Intelligence and Automation	2	2	0	0	2	
3	BMT 456	Implantable Medical Devices	2	2	0	0	2	
4	BMT 457	Assistive technology Devices	2	2	0	0	2	

Area 4		Biomedical Imaging		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 473	Biomedical Signal Processing Applications	2	2	0	0	2	
2	BMT 474	Medical Imaging Systems	2	2	0	0	2	
3	BMT 475	Medical Image Analysis	2	2	0	0	2	

Area 5		Clinical Engineering		Credit	Contact			
Code	Course Title	Lec	Lab		Tut	Total		
1	BMT 488	Maintenance of Biomedical Equipment	2	2	0	0	2	
2	BMT 489	Human Factors in Biomedical Technology	2	2	0	0	2	
3	BMT 487	Healthcare Project Management	2	2	0	0	2	

*** BMT academic advisor's approval required prior to subscription