

Course	Credits	Hrs	1 st year				2 nd year				3 rd year				4 th year				Note
			Fall		Spring		Fall		Spring		Fall		Spring		Fall		Spring		
			class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
00123 Chinese Literature: Appreciation and Creative Writing I	2	2	2															Graduation Requirement 1	
00124 Chinese Literature: Appreciation and Creative Writing II	2	2			2														
01108 Practical English I	0	2	1	1														Graduation Requirement 1	
01109 Practical English II	0	2			1	1													
01208 Practical English III	0	2					1	1											
01209 Practical English IV	0	2							1	1									
01306 English for Business Communication I	2	3									2	1							
01307 English for Business Communication II	2	3										2	1						
01406 Practical English for Professionals I	2	3												2	1				
01407 Practical English for Professionals II	2	3														2	1		
36134 Applied Information Technology : Office Software	2	3	2	1														Graduation Requirement 1	
13285 Programming Design	2	3			2	1													
General Education	12	12																Graduation Requirement 2	
00121.00122.00221.00222.00321.00322 Physical Education I~XI	0	12	2		2		2		2		2		2					Graduation Requirement 1	
Subtotal	28	54	7	2	7	2	3	1	3	1	4	1	4	1	2	1	2	1	
Professional Required	35109 Calculus I	3	4	3	1														
	67128 Physics	3	3	3														New	
	67129 Physics Lab	1	3	1	2													New	
	67115 General Biology	3	3	3														New. Change Required Elective to Required.	

Ming Chuan University Biomedical Engineering Department Course Outline for all students entered on August 2019

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				class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
	67127 Introduction to Medical Materials Industry	1	1	1																
	35110 Calculus II	3	4			3	1													
	67122 Electronic Circuits	3	3			3														
	67116 General Biology Lab	1	3			1	2													
	67123 Organic Chemistry	3	3			3														
	67126 Introduction to Biomedical Engineering	1	3			3														
	67228 Engineering Mathematics I	3	3					3												
	67243 Electronics I	3	3					3												
	67217 Electronic Circuits Lab I	1	3					1	2										Service Learning	
	67214 Anatomy and Physiology I	3	3					3												
	67225 Anatomy and Physiology Lab I	1	3					1	2											
	67226 Biochemistry	3	3					3												
	67229 Engineering Mathematics II	3	3							3										
	67244 Electronics II	3	3							3										
	67220 Electronic Circuits Lab II	1	3							1	2								Service Learning	
	67223 Signals and Systems	3	3							3										
	67221 Anatomy and Physiology II	3	3							3										
	67227 Anatomy and Physiology Lab II	1	3							1	2									
	67323 Biomedical Engineering Lab I	1	3									1	2							
	67325 Biostatistics	3	3									3							New. Change Elective to Required.	
	67324 Biomedical Engineering Lab II	1	3											1	2					
	67326 Technical Article Reading and Presentation	1	3											3					New	
	67415 Research Project I	1	2													2				
	67416 Research Project II	1	2															2		

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67417 Biomedical Engineering Ethics	1	1															1			
Subtotal	59	83	11	3	13	3	14	4	14	4	4	2	4	2	2	0	3	0		
Professional Elective Courses	67253 Database Management	2	3						2	1									Computer Courses	
	67255 Medical Devices Quality System	3	3									3							Distance Learning Courses.	
	67361 Medical Electronics	3	3									3								
	67365 Internships Abroad	2	2									2								
	BE074 Medical Informatics	3	3									3							Computer Courses	
	67359 Clinical Instrumental Analysis	3	3										3							
	67355 Applied Mechanics	3	3										3						New. Change Required to Elective.	
	67458 Medical Engineering Lab	3	8													3	5			
	67465 Electromagnetic Compatibility	3	3													3				
	67452 Medical Measurement and Instrumentation	3	3															3		
67453 Healthcare Photoelectric System	3	3													3				Change Spring to Fall	
67460 Patent Engineering	3	3															3			
67462 Introduction to Nano Biomedicine	3	3															3			
Smart Medical Treatment	67257 Programming Design I	2	3					2	1											Required Elective Courses. Computer Courses.
	67258 Programming Design II	2	3						2	1										Required Elective Courses. Computer Courses.
	67256 Introduction to Materials Science	3	3						3											

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Program	67356 Digital System Design	3	3							3										Computer Courses
	67352 Biomedical Materials	3	3									3								
	67353 Introduction to Clinical Medicine	3	3									3								
	67364 Microprocessor	3	3									3								Computer Courses
	67357 Biomedical Signal Processing	3	3										3							Computer Courses
	67358 Materials Mechanics	3	3										3							
	BE075 Embedded Systems	3	3										3							Computer Courses
	67461 Biosensor	3	3													3				
	67454 Introduction to Biomechanics	3	3													3				
	67455 Tissue Engineering	3	3													3				
Other	BE076 IHE Smart Integrated Interface	3	3													3				Computer Courses
	67151 Introduction to Computer Science	2	3	2	1															Computer Courses
	67457 Complementary Medicine Engineering	3	3															3		
	67463 Technical English Writing	2	2													2				English Courses
	67464 Technical English Presentation	2	2															2		English Courses
	BE077 Internship	3	3													3				7+1 Internship as Career Program Courses
	BE078 Advanced Internship	3	3															3		
	BE079 Seminar on Industry Practice	3	3															3		
	00134 Nursing Education I	0	2	2																
	00135 Nursing Education II	0	2			2														

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00241 All-out Defense Education Military Training A	0	2	2																
00242 All-out Defense Education Military Training B	0	2			2														
00243 All-out Defense Education Military Training C	0	2				2													
00244 All-out Defense Education Military Training D	0	2						2											
00A01 Physical Education IV	2	2												2					
00A02 Physical Education IV	2	2														2			
Subtotal Required Course Credits	87																		
At least Elective Course Credits	41																		
Subtotal Professional Elective Course Credits	22																		
Outside the department must admit Elective Course Credits	19																		
Grand Total	128																		

Graduation Requirements :

1. In accordance with the General Provisions for Study, undergraduate students need to satisfactorily complete Service Learning, meet the university-wide basic competencies of English, Information Technology, Chinese, and Sports, and pass the core competencies of their department to be eligible for graduation.
2. Students need to complete at least 12 General Education course credits. General Education courses are divided into three areas: Humanities, Social Science, and Natural Science. Each area is divided into two subcategories: core and extended. Students need to take 1 two-credit course in both of the subcategories within each area to be eligible for graduation. Only 12 course credits will be counted toward graduation. Additional course credits earned in General Education courses are not counted toward graduation.

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3. Course credits obtained from Education Program cannot be counted toward students' final grades.
4. Programming Design I, Programming Design II, those are elective courses that the Department requires students to take. However, students will not be required to retake the courses if they fail them and this will not affect their eligibility for graduation.
5. The credits of interdisciplinary focused course program are not included in course structure diagram that can be regarded as the other department credits, with a maximum 19 credits.
6. As for retaking professional required courses, students are allowed to take courses from other departments under the conditions of the same course titles or contents, and approval by the department chair. The credits from those retaken courses can be counted toward students' final grades.
7. The newly added elective courses in this academic year can be applied retroactively to students who entered from 2019-20 academic year.