

# Typical Pre-Health Four-Year Plan of Study



## SCHOOL OF MOLECULAR & CELLULAR BIOLOGY

## Instructional Program



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This plan is to be used only as a guide. Many factors may affect the sequence and timing of courses. Course selections are best made in consultation with an MCB Advisor. Students must successfully complete at least 120 hours to be eligible for graduation. For an appointment, call (217) 333-6774 or use our online scheduling system at [mcb.illinois.edu/advising](http://mcb.illinois.edu/advising).

FIRST YEAR	
SEMESTER 1	SEMESTER 2
Intro Biology: MCB 150 or IB 150 (4 hrs) Chemistry: Begin gen CHEM sequence per placement (3–5 hrs) Math/Stat: Begin MATH sequence per placement* (3–5 hrs) OR Composition I: RHET, CMN, ESL or equivalent (3–4 hrs) First Year Enrichment Course: LAS 101 or 122 (1 hr) Options: language, general education**, or elective (0–5 hrs) TOTAL CREDIT HOURS: 14–16	Intro Biology: MCB 150 or IB 150 (4 hrs) Chemistry: Continue general CHEM sequence (4 hrs) Math/Stat: Begin MATH sequence per placement* (3–5 hrs) OR Composition I: RHET, CMN, ESL or equivalent (3–4 hrs) Options: language, general education**, or elective (0–5 hrs) TOTAL CREDIT HOURS: 14–16
SECOND YEAR	
SEMESTER 3	SEMESTER 4
Molecular Genetics & Lab: MCB 250 & MCB 251 (5 hrs)*** Chemistry: Finish general CHEM or begin organic CHEM (4–6 hrs) Choose 1–2 of the following: (1–6 hrs) <ul style="list-style-type: none"> <li>• Math/Stat: Begin or continue if necessary*</li> <li>• Language: Begin or continue, if necessary</li> <li>• Research: MCB 290</li> <li>• General-Education Course**</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 14–17	Cells, Tissues & Develop. & Lab: MCB 252 & MCB 253 (5 hrs) Chemistry: Finish organic CHEM, if necessary (2–6 hrs) OR Physics: PHYS 101 or 211, if CHEM complete (4–5 hrs) OR Choose 1–2 of the following: (1–6 hrs) <ul style="list-style-type: none"> <li>• Language: Begin or continue, if necessary</li> <li>• Research: MCB 290</li> <li>• General-Education Course**</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 14–17
THIRD YEAR	
SEMESTER 5	SEMESTER 6
Biochemistry: MCB 354 (3 hrs) Physics: Begin or continue PHYS sequence (4–5 hrs) Choose 2–3 of the following: (5–10 hrs) <ul style="list-style-type: none"> <li>• General Education Course**</li> <li>• Anatomy &amp; Physiology: MCB 244 and/or MCB 245*</li> <li>• Research: MCB 290</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 14–18	Approved Advanced MCB course or lab** (2–4 hrs) Physics: Continue PHYS sequence, if necessary (4–5 hrs) OR Additional Approved Advanced MCB course or lab (2–4 hrs) Choose 2–3 of the following: (6–10 hrs) <ul style="list-style-type: none"> <li>• General Education Course**</li> <li>• Anatomy &amp; Physiology: MCB 246 and/or MCB 247*</li> <li>• Research: MCB 290</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 14–18
FOURTH YEAR	
SEMESTER 7	SEMESTER 8
1 or 2 Approved Advanced MCB courses or lab** (1–8 hrs) Choose 2–3 of the following: (6–10 hrs) <ul style="list-style-type: none"> <li>• General Education Course**</li> <li>• Anatomy &amp; Physiology: MCB 244 and/or MCB 245*</li> <li>• Research: MCB 290</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 12–18	1 or 2 Approved Advanced MCB courses or lab** (2–8 hrs) Choose 2–3 of the following: (6–10 hrs) <ul style="list-style-type: none"> <li>• General Education Course**</li> <li>• Anatomy &amp; Physiology: MCB 246 and/or MCB 247*</li> <li>• Research or Senior Thesis: MCB 290 or 492</li> <li>• Elective Course</li> </ul> TOTAL CREDIT HOURS: 12–18

- \* Statistics is highly recommended to prepare for the MCAT and medical school.
- \*\* At least one course in psychology and sociology should be taken. Three to four social/behavioral science courses are recommended.
- \*\*\* General Chemistry 1 and 2 lectures (CHEM 102 and CHEM 104) must be completed before beginning MCB 250.
- + Anatomy & Physiology courses are required for many allied-health professions, but not MD programs.
- \*\* Approved advanced courses can be found at <http://go.mcb.illinois.edu/MCBAAC>. Courses that may be of particular interest to pre-med students include, but are not limited to, cell biology, immunology, microbiology, neurobiology, and physiology.

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## Instructional Program



This chart depicts how the Molecular and Cellular Biology curriculum meets or exceeds the prerequisites for most health-profession schools. Please note it is the responsibility of the student to research admission requirements for each school. Some courses may be required, while other courses are strongly recommended (courses may be needed for a more competitive application).

Course	MED	PA	PHARM	DENT	PT	OT	OPT	VET	RN	Hours	MCB	Fulfills
Intro Biology (IB & MCB 150)	X	X	X	X	X	SR	X	X		8	Required	Gen Ed /Support
General Chemistry (CHEM 102 & 103)	X	X	X	X	X	SR	X	X	X	4	Required	Gen Ed /Support
General Chemistry (CHEM 104 & 105)	X	X	X	X	X		X	X	X	4	Required	Gen Ed/Support
Organic Chemistry I (CHEM 232 & 233)	X	X	X	X			X	X		6	Required	Gen Ed /Support
Organic Chemistry II (CHEM 332)	R		X	SR						4	Optional	CHEM Minor
Biochemistry (MCB 354)	X	X	X	X			X	X		3	Required	Major
Microbiology (MCB 300 & 301)		X	X	X			X	X	X	6	Optional	Advanced
Physics (PHYS 101 & 102)	X		X	X	X		X	X		10	Required	Gen Ed/Support
Molecular Genetics (MCB 250)	X			X				X		3	Required	Major
Exp Tech in Molecular Bio (MCB 251)	X	X	X	X	X	SR	X	X		2	Required	Major
Cells, Tissues, & Develop (MCB 252)										3	Required	Major
Exp Tech in Cellular Bio (MCB 253)	X	X	X	X	X	SR	X	X		2	Required	Major
Human Physiology (MCB 402)	R									3	Optional	Advanced
Psychology (PSYC 100)	X	X	X	SR	X	X	X	SR	X	4	Optional	Gen Ed
Sociology (SOC 100)	X	X	X	SR	X	X		SR	X	4	Optional	Gen Ed
A&P I & II (MCB 244, 245, 246, & 247)		X	X	X	X	X	X		X	10	Optional	Elective
Calculus (MATH 220)	X		X		X		X			5	Required	Gen Ed/Support
Biostatistics (STAT 212)	X	X	X		X	X	X	X	X	3	Alternative	Gen Ed/Support
Communication (Comp 1 & Adv Comp)	X	X	X	X	X	X	X	SR		7 – 12	Required	Gen Ed
Additional Specific Courses		CLCV 102	ECON 102		CLCV 102	CLCV 102	HUM (3 – 9 hrs)	HUM (3 hrs)	FSHN 120			
Additional Specific Courses			ECON 103		PSYC 238	HDFS 105	SBS (6 – 9 hrs)	SBS (3 hrs)	HDFS 105			
Additional Specific Courses			CMN 101			PSYC 238						
Additional Specific Courses			HUM (3 – 9 hrs)									
	MCAT*	PA-CAT	PCAT	DAT	GRE	GRE	OAT	GRE	NCLEX			

X = Required for Admission  
R/SR = Recommended/Strongly Recommended

Gen Ed = General-Education Core Requirement  
Support = Supporting Course for MCB Major

Major = MCB Core Course  
Advanced = Approved Advanced MCB Course

\*In addition to completing the MCAT, some medical schools may require applicants to complete additional assessments (examples, CASPer, the AAMC PREview, etc.)