

B.S. Chemical Engineering Suggested Pre-Med Curriculum

Fall Semester

Spring Semester

First Year

APMA 1110	Single Variable Calculus II ^(a)	APMA 2120	Multivariable Calculus III
CHEM 1410	General Chemistry I	CHEM 1420	General Chemistry II
CHEM 1411	General Chemistry I: Lab	CHEM 1421	General Chemistry II: Lab
ENGR 1624	Intro. to Engineering & Lab	PHYS 1425	Gen. Physics I: Mechanics, Thermo.
STS 1500	Engineering, Technol. & Society	PHYS 1429	Gen. Physics I: Workshop
		CS 111X	Intro. to Programming
		PSYC 1010	Intro. to Psychology

Second Year

APMA 2130	Differential Equations	APMA 3110	Applied Probability & Statistics
CHE 2215	Material & Energy Balances	CHE 2202	Thermodynamics
CHEM 2410	Organic Chemistry I	CHE 2216	Modeling & Simulation in ChE
CHEM 2411	Organic Chemistry Laboratory I	CHEM 2420	Organic Chemistry II
PHYS 2415	Gen. Physics II: Elect. & Mag., Optics	CHEM 2421	Organic Chemistry Laboratory II
PHYS 2419	Gen. Physics II: Workshop		

Third Year

CHE 3316	Chemical Thermo. & Unit Ops.	CHE 3318	Chemical Reaction Engineering
CHE 3321	Transport Processes I	CHE 3322	Transport Processes II
CHEM 3610	Physical Chemistry	CHE 3398	Chemical Engineering Lab I
BIOL 3030	Biochemistry	BIOL 2200	Intro. to Biology & Lab II ^(e)
BIOL 2100	Intro. to Biology & Lab I ^(e)	STS 2XXX or 3XXX	Elective ^(b)

Fourth Year

CHE 4474	Process Syn., Modeling & Control	CHE 4476	Chemical Engineering Design
CHE 4475	Intro. to Process Safety	CHE Elective ^(d)	
CHE 4491	Chemical Engineering Lab II	STS 4600	STS & Engineering Practice
CHE Elective ^(d)		Engineering Elective ^(c)	
STS 4500	STS & Engineering Practice	HSS Elective	
SOC 1010	Intro. to Sociology ^(e)		

^(a) **APMA 1110**: Students starting with APMA1090 should consult with their academic advisor as soon as possible.

^(b) **STS 2XXX or 3XXX**: Also satisfied by any course that meets the Second Writing Requirement, as specified by the College of Arts & Sciences (CLAS).

^(c) **Engineering elective**: Acceptable courses are listed via the SIS 'Academic Requirements' page (*Note*: ENGR 4880 does not satisfy the Engineering elective).

^(d) **CHE elective**: Chosen from CHE 3347, 4442, 4448, 4449, 4450, 4456, 4561*, or 4562* (*specific sections must be individually approved)

^(e) **Recommended electives**

Note: The information contained in this document is for informational purposes only. The Undergraduate Record represents the official repository for academic program requirements: <http://records.ureg.virginia.edu/>

Recommended actions for ChE students applying to medical school

As you work toward completing your pre-med requirements, you should consider the following:

1. Consider taking the CASPer Test (measures traits like professionalism, ethics, communication, and empathy and is required by many medical schools)
2. Ask for letters of recommendation before the end of the fall semester preceding the year of your application
 - a. 3–4 from engineering/science faculty and 1 from a non-science faculty
 - b. Ask for letters to be submitted through Interfolio
3. The latest date you should take the MCAT is June 1st of the year you intend to apply. It takes about one month to receive the scores. Application windows open around June 1st and by the time the application is complete (it will take about one month), the MCAT scores will have become available. Applications need to be approved by the medical schools. One strategy to avoid errors is to submit early to a “test” school so that your application will be checked early before applying to your schools of choice
4. Obtain the Medical School Admission Requirements™(MSAR) (an online database that enables you to browse, search, sort, and compare information about U.S. and Canadian medical schools and BS/MD programs, and more)
5. Perform at least 200–250 hours of service before applying
6. Recommended study materials:
 - a. Kaplan Books
 - b. Khan Academy for Psych/Sociology
 - c. Official AAMC Practice Hub

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