Pre-Medicine Prerequisite Guide

THE UNIVERSITY OF RHODE ISLAND
CENTER FOR CAREER AND EXPERIENTIAL EDUCATION

This guide is designed to assist in planning coursework to fulfill common medical school prerequisites. Medical schools have varying prerequisites; it is **essential to research specific admissions requirements.** Take these courses during the fall and/or spring semesters at URI; avoid summer and online.
Recommended: maintain 3.6+ GPA; grades at "C" or higher.

Pre-Medicine (or, Pre-Health) is not a major at URI; consider using this guide to create a plan with an academic advisor to integrate these into major/minor requirement(s).

Course	Name	Credits	Prerequisites & Notes
Biology Requirements			
BIO 101 or BIO 110 **and** BIO 103	Principles of Biology or Fundamentals of Biology **and** Lab	4	Preferred: BIO 101
BIO 102 **and** BIO 104	Principles of Biology II **and** Lab	4	BIO 101[110]/103
CMB 201 **and** CMB 202 or CMB 211	Introductory Medical Microbiology **and** Lab **or** Integrative Microbiology	4	Preferred: CMB 211 1 semester of BIO, 1 year of CHM
BIO/CMB 352	General Genetics	4	BIO 101 or 110 **and** BIO 102
Math Requirements			
MTH 131 or 141	Applied Calculus or Calculus I	3 or 4	MTH 103 with a C- or higher or Placement
STA 307, 308 or 409	Intro Biostatistics, Intro Statistics or Statistical Methods in Research	4	MTH 103, 131 or 141
Chemistry Requirements			
CHM 101 **and** CHM 102	General Chemistry Lecture I and Lab	4	
CHM 112 **and** CHM 114	General Chemistry Lecture II and Lab	4	
CHM 227	Organic Chemistry Lecture I	3	
CHM 228 **and** CHM 226	Organic Chemistry Lecture II and Lab	4	CHM 227
Biochemistry Requirements			
CMB 311	Introductory Biochemistry	3	CHM 101 & 102 + CHM 227 or CHM 124
Physics Requirements			
PHY 111 or 203 **and** PHY 185 or 273	General Physics I or Elementary Physics I **and** Lab	4	
PHY 112 or 204 **and** PHY 186 or 274	General Physics II or Elementary Physics II **and** Lab	4	

Course	Name	Credits	Prerequisites & Notes
Writing/English Requirements			
WRT 104 or 106	Writing to Inform and Explain or Introduction to Research Writing	3	
WRT, ENG or LIT	Any WRT, ENG or LIT course	3	Exception: Creative Writing
Social Science Requirements			
Psychology	Suggestions: PSY 113, 232, 254 or 255	3	
Sociology	Suggestions: SOC 100, 204 or 224	3	

Notes

- For chemistry majors: CHM 191-192-291-292 will satisfy the chemistry requirements
- Physics: Two of the three course sequence, PHY 203-204-205 with labs may be substituted
- CMB 211 Microbiology for CELS and Nutrition majors only
- Intro Chemistry (CHM 103 and 105) and Intro to Organic Chemistry ("Baby Orgo" CHM 124 and 126) do not meet pre-med requirements

Summer Suggestions

- Avoid taking prerequisites required for medical school admission
- Gain experience (see the guide below for suggestions)
- Consider studying abroad
- Consider a summer enrichment program i.e.: Summer Health Professions Education Program (SHPEP)
- Study for the MCAT; consider taking the exam between Junior and Senior year (allows for retakes)
- Be prepared: create your ideal timeline for applying, read anatomy of applicant articles on the AAMC website, listen to podcasts, shadow physicians

Potential Timeline (includes a Growth Year):

First - Third Years

- Complete core BCPM (Bio, Chem, Physics, Math) courses
- Gain patient care, volunteer & leadership experience
- Get involved on campus and in research
- Shadow physicians

Fourth Year and/or Growth Year

- Take Biochem & upper-level sciences
- Request letters of recommendation and write personal statement
- Continue patient care experience, volunteer and research
- Participate in HPAC
- Prep for MCAT; take exam (Jan - March)
- Submit AMCAS application (May)
- Complete secondaries & interviews
- Receive decisions & prepare for med school

AP Credits: students with AP credit for biology, chemistry, or physics should take an upper-level course with a lab in that discipline to demonstrate proficiency. Many schools accept AP credit for math courses (calculus or statistics), but students should check requirements for each program.

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Pre-Medicine Experiential Learning Guide

In addition to completing the necessary coursework, competitive applicants typically engage in **clinical/ direct patient care experience, research, volunteer work, shadowing, and on campus involvement/leadership.**

All students will reflect on these experiences in their application to medical school. Consider how you can use these experiences to demonstrate any of the **17 competency standards** that are expected of all applicants.

Clinical/Direct Patient Care:

- Certified Nurse Assistant (CNA)
- Patient Care Technician (or Care Navigator)
- Medical Assistant (MA)
- Emergency Medical Technician (EMT)
- EMT Course Instructor
- Clinical Research Assistant
- Medical Scribe
- Phlebotomist
- Pharmacy Technician
- Patient Transport
- Rehabilitation Aide
- Hospice Volunteer
- Operating Room Assistant

Volunteer/Community Engagement

- RI Free Clinic
- Clinica Esperanza
- Hospital Volunteer
- Blood Drives
- Connect for Health - Brown University Health
- Crisis Text Responder
- Food Bank or Rhody Outpost
- Habitat for Humanity
- United Way
- Homeless Shelters
- Domestic Violence
- Planned Parenthood
- Sprout & STEM Tutoring
- Child Bereavement

Research:

- CELS Summer Research Program
- Clinical Research
- Honors project
- Undergraduate Research Assistant
- SURF (URI INBRE and EPSCoR)
- Agriculture and Food Systems Fellow
- Energy Fellows
- Coastal Institute Fellows
- any research initiative, on or off campus

On Campus Involvement/Leadership

- Undergraduate Teaching Assistant (UTA)
- URI Student Ambassador
- Tutor, Writing Consultant or Academic Coach (AEC)
- Pre-Health Peer Advisor
- Resident Assistant (RA)
- Student Athlete
- Student Clubs and Organizations (over 150!)
- DocOpp, Delta Epsilon Mu (DEM)
- URI 101 Mentor

Growth Year Options

- Full time roles in any of the positions above
- AmeriCorps or Peace Corps
- Scribe Program Manager

Shadowing

Reach out physicians in multiple fields to request shadowing hours. Use LinkedIn, company websites, and your network.