

Pre-Health Professions Students: General Prerequisite Course Work

Students with an interest in a health profession should meet with staff in the UCR Medical and Health Careers Program early in their undergraduate program to begin regular and on-going advising about their specific health profession interest(s). Students are encouraged to explore different health career options and to confirm their interest in a particular health profession. There is no “best” major for those going into graduate or professional programs in the health professions. Students should major in a field that genuinely interests them.

Regardless of major, students must have a solid foundation in the sciences and must complete prerequisite courses in preparation for admission tests and applying for admission to graduate or health professions programs. Courses should be academically rigorous and acceptable for students majoring in these areas.

The following courses will meet requirements for *most* health professions programs. **Be sure to check each program and each school you plan to apply to for their additional and/or different requirements.**

Note: Most health professions programs will NOT accept grades of C- and below.

1 year of Biology with Labs

Either BIOL 005A, BIOL 005B, and BIOL 005C (all with labs) **or** BIOL 002, BIOL 003, and BIOL 005C (all with labs) will meet this requirement. **Note:** BIOL 002 & 003 are generally offered for and might generally only be acceptable for students that are non science majors.

BIOL 005A and BIOL 05LA – Introduction to Cell and Molecular Biology

Prereq: CHEM 001A and CHEM 011A or CHEM 01HA and CHEM 1HLA with grades of C- or better

BIOL 005B – Introduction to Organismal Biology (Lab included)

Prereq: BIOL 005A and BIOL 005LA with grades of C- or better; CHEM 001A or CHEM 01HA; CHEM 01B or CHEM01HB

BIOL 005C – Introductory Evolution and Ecology (Lab included)

Prereq: BIOL 005A and BIOL 005B with grades of C- or better; MATH 009A or equivalent (may be taken concurrently)

OR

BIOL 002 - Cellular Basis of Life

Prereq: none Not recommended for natural science majors. Credit is not awarded for BIOL 002 if it has already been awarded for BIOL 005A or BIOL 005LA

BIOL 003 – Organisms in their Environment

Pre-req: none. Credit is not allowed for both BIOL 003 and BIOL 005B

BIOL 005C – Introductory Evolution and Ecology (Lab included)

Prereq: BIOL 005A and BIOL 005B with grades of C- or better; MATH 009A or equivalent (may be taken concurrently)

1 year of General Chemistry with Labs

CHEM 001A – General Chemistry

Prereq: 3, 4, or 5 score on College Board Advanced Placement Chemistry Exam or passing score on California Chemistry Diagnostic Test OR grade of C- or better in MATH 005 or concurrent enrollment in MATH 008 or a grade of C- or better in an equivalent college-level math or chemistry course; concurrent enrollment in CHEM 01LA or a grade of C- or better in CHEM 01LA

CHEM 01LA – General Chemistry Lab

Prereq: Concurrent enrollment in CHEM 001A or a grade of “C-“ or better in CHEM 001A

CHEM 001B – General Chemistry

Prereq: Grades of C- or better in CHEM 001A and CHEM 01LA or grades of C- or better in CHEM 01HA and CHEM 1HLA; concurrent enrollment in CHEM 01LB or a grade of C- or better in CHEM 01LA

CHEM 01LB – General Chemistry Lab

Prereq: Grades of “C-“ or better in CHEM 001A and CHEM 01LA or grades of “C-“ or better in CHEM 01HA and CHEM 1HL; concurrent enrollment in CHEM 001B or a grade of “C-“ or better in CHEM 001B

CHEM 001C – General Chemistry

Prereq: Grades of C- or better in CHEM 001B and CHEM 01LB or grades of C- or better in CHEM 01HB and CHEM 1HLB; concurrent enrollment in CHEM 01LC or a grade of C- or better in CHEM 01LC

CHEM 01LC – General Chemistry Lab

Pre-req: Grades of “C-“ or better in CHEM 001B and CHEM 01LB or grades of “C-“ or better in CHEM 01HB and CHEM 1HLB; concurrent enrollment in CHEM 001C or a grade of “C-“ or better in CHEM 001C

1 year of Organic Chemistry with Labs

CHEM 112A – Organic Chemistry (includes Lab)

Prereq: CHEM 001C and CHEM 01LC with grades of “C-“ or better or CHEM 01HC and CHEM 01HLC with grades of “C-“ or better

CHEM 112B – Organic Chemistry (includes Lab)

Prereq: CHEM 112A with a grade of “C-“ or better

CHEM 112C – Organic Chemistry (includes Lab)

Prereq: CHEM 112B with a grade of “C-“ or better

1 year of Physics with Lab

PHYS 002A – General Physics

Prereq: MATH 008B with a grade of “C-“ or better or MATH 009A with a grade of “C-“ or better or MATH 09HA with a grade of “C-“ or better

PHYS 02LA – General Physics Lab

Prereq: PHYS 002A (may be taken concurrently)

PHYS 002B – General Physics

Prereq: MATH 009B or MATH 09HB (may be taken concurrently) and a grade of “C-“ or better in PHYS 002A

PHYS 02LB – General Physics Lab

Prereq: PHYS 002A with a grade of “C-“ or better; PHYS 02LA, PHYS 002B (may be taken concurrently)

PHYS 002C – General Physics

Prereq: PHYS 002B with a grade of C- or better

PHYS 02LC – General Physics Lab

Prereq: PHYS 002B with a grade of “C-” or better, PHYS 02LB, PHYS 002C (may be taken concurrently)

ADDITIONAL SUGGESTED COURSE WORK

It is not necessary to complete these courses if they are not required for your major or required by a specific health professions program. Be sure to check the specific required courses for the health professions schools/programs you will apply to. (You must also meet any prerequisites for the courses listed. Check the current *UC Riverside General Catalog*.)

Mathematics/Statistics

Although only a few schools require specific course work in mathematics, mathematical competence as a strong foundation for understanding the basic sciences is expected. MATH 008 and MATH 009, while not required by most health professions schools, are prerequisites for PHYS 002A and PHYS 002B.

A working knowledge of statistics is helpful in becoming a critical evaluator of medical/health literature and is required by some health professions programs and recommended by others.

MATH 008A and 008B Introduction to College Mathematics for the Sciences

MATH 009A and 009B First Year Calculus

STAT 100A and 100 B Introduction to Statistics

English Composition and Literature

In addition to the English requirement **ENGL 001A**, **ENGL 001B**, and **ENGL 001C**, consider additional course work in writing and/or literature. Literature courses can be helpful in developing reading comprehension skills, particularly valuable for admissions tests such as the MCAT, DAT, or PCAT.

Biology/Microbiology/Biochemistry

Some medical and other health professions programs require or recommend one or more of the following courses. Check for course pre-requisites.

BCH 100	Elementary Biochemistry
BCH 110A, B, C	General Biochemistry
BCH 120	Topics in Human Biochemistry
BIOL 102	Introductory Genetics
BIOL 107A	Molecular Biology
BIOL 121	Introductory Microbiology
BIOL 121L	Microbiology Lab
BIOL 128	Immunology
BIOL 161A	Functional Anatomy of the Vertebrates
BIOL 161B	Functional Anatomy of the Vertebrates
BIOL 171	Human Anatomy and Physiology
BIOL 171L	Human Anatomy and Physiology Lab
MCBL 141	Public Health Microbiology

Other Courses that may be of interest for Pre-health Students

Art

ART 005 Beginning Sculpture and Three-Dimensional Design (pre-dental)

Anthropology

ANTH 020 Culture, Health and Healing
ANTH 143 Gender, Race and Medicine
ANTH 155 Human Osteology
ANTH 156 Advanced Osteology
ANTH 158 Biological Approaches to Medical Anthropology
ANTH 160 Political Economy of Health
ANTH 162 Culture and Medicine
ANTH 166 Cultural Perspectives of Cancer

Biology

BIOL 110 Biology of Human Problems

Cell Biology and Neuroscience

CBNS 101 Fundamentals of Cell Biology
CBNS 106 Introduction to Neuroscience
CBNS 108 Introduction to Developmental Biology
CBNS 123 Brain Control of Bodily Functions
CBNS 125 Neuropharmacology
CBNS 128 Immunology
CBNS 150 Cancer Biology

Ethnic Studies

ETST 116 Medicine Ways of Native Americans

History

HIST 032 Disease and Society

Microbiology

MCBL 121 Introductory Microbiology
MCBL 123 Introduction to Comparative Virology
MCBL 124 Pathogenic Microbiology
MCBL 133 Environmental Microbiology
MCBL 141 Public Health Microbiology
MCBL 188 Microbiology Diagnostics

Philosophy

PHIL 007 Critical Thinking (pre-nursing)
PHIL 009 Biomedical Ethics
PHIL 112 Mortal Questions
PHIL 114 Science and Human Understanding
PHIL 161 Ethics
PHIL 167 Biomedical Ethics
PHIL 168 Ethics and Families

Political Science

POSC 180 Politics of Public Health
POSC 186 Regulation: A Political Perspective

Psychology

PSYC 160 Life Span Development (pre-nursing)
PSYC 178 Health Psychology
PSYC 179 Health and Human Behavior

Religious Studies

RLST 015 Death

Theater

THEA 050 Public Speaking

Women's Studies/Lesbian, Gay, Bisexual, Intersexual, and Transgender Studies

WMST 106 Feminist Bioethics (cross-listed with PHIL 171)
WMST 189 Gender, Technology and the Body (cross-listed with LGBS 189)