

Common Pre-requisite Courses in IQ Biology

APPM 4/5560 - Markov Processes

Prerequisites: APPM 3570 (Applied Probability) or equivalent

Web Link: <http://amath.colorado.edu/courses/4560/2011fall/index.html>

APPM 4570/5570 – Statistical Methods

Prerequisites: APPM [1360](#) or equivalent Calculus 2 course. Same as APPM [5570](#).

Web Link: <http://amath.colorado.edu/courses/4570>

MCDB 3500 – Molecular Biology

Prerequisites: CHEM [1133](#), and either MCDB [2150](#) or EBIO [2070](#). Coreq., CHEM [3311](#) or [3351](#).

Web Link: <http://dosequis.colorado.edu/Courses/MCDB3500/>

CHEM [4711-3](#). General Biochemistry 1 (syllabus unavailable)

Description: Lect. Topics include structure, conformation, and properties of proteins, nucleic acids, carbohydrates, and membranes; enzyme mechanisms, kinetics, and regulation; intermediary metabolism; energetics and metabolic control; electron transport and oxidative phosphorylation.

Prerequisites: CHEM [3331](#) or [3371](#) (min. grade C-). Same as CHEM [5711](#).

CSCI 3104 – Algorithms

Prerequisites: Data Structures, Discrete Math, and two semesters of Calculus. We will be assuming a thorough knowledge of basic algebra, logarithms, functions, inequalities, etc., that you will have seen in calculus. You should know basic combinatorics, set theory, math induction, and graph theory. You will also be expected to have facility with a programming language such as C, C++, Python or Java. Official prereqs: CSCI [2824](#) and two semesters of calculus.

Web Link: <http://www.cs.colorado.edu/~jrblack/class/csci3104/s11/>

<http://www.cs.colorado.edu/~lv/teach/fall11.html>

CSCI 3308 – Software Engineering Methods and Tools

Prerequisites: CSCI [2270](#)

Web Link: <http://3308.rallyedu.net/home?offset=0>

CHEM 1133 - General Chemistry 2

Prerequisites: CHEM [1113/1114](#) or equivalent (min. grade C-). Coreq., CHEM [1134](#)

Web Link: No website.

PHYS 2010 – General Physics 1

Prerequisites: ability to use high school algebra and trigonometry.

Web Link: <http://www.colorado.edu/physics/phys2010>

PHYS 2020 – General Physics 2

Prerequisites: General Physics I, preferably PHYS2010. Basic algebra, geometry and trigonometry. College level logic, enthusiasm, and curiosity will be helpful too!

Web Link: <http://www.colorado.edu/physics/phys2020>

MATH [1300](#) – Analytic Geometry and Calculus 1

Prerequisites: two years high school algebra, one year geometry, and 1/2 year trigonometry or MATH [1150](#)

Web Link: <http://www.colorado.edu/math/courses/calculus/math1300.html>

CHEM [3311](#) – Organic Chemistry 1

Prerequisites: CHEM [1133/1134](#) (formerly CHEM [1131](#)), [1271](#), or [1371](#) (min. grade C-) or equivalent; for engineering students only: CHEN [1211](#) (min. grade C-) or equivalent; coreq., CHEM [3321](#) or [3361](#).

Web Link: <http://orgchem.colorado.edu/> and <http://walba.colorado.edu/3311.html>