



Summary of Course Prerequisites

For All AAVMC Member Institutions for 2016 Matriculation

UPDATED AS OF April 9, 2015

Updates: [See Change Log: Page 15](#)

The Summary of Course Prerequisites is designed to supplement admission information provided by each institution. The colleges to which you apply may have additional requirements not summarized in this table. Contact each institution to which you wish to apply for a college brochure. This table is for use in 2014 for 2015 matriculation only and is subject to change. Please direct all questions regarding course prerequisites directly to the institution.

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(Please check www.aavmc.org for updates)

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Auburn University

Courses (Semester hours)

Written Composition# (6)

*Literature# (3)

Fine Arts # (3)

Humanities/fine arts electives# (6)

*History# (3)

Social/behavioral science electives# (9)

Mathematics – precalculus with trigonometry# (3)

Biology I with lab (4)

Biology II with lab (4)

Cell Biology (3)

Fundamentals of chemistry with lab (8)

Organic chemistry with lab (6)

Physics I (4)

Biochemistry (3)

** Science Electives (6)

##Animal Nutrition (3)

*Students must complete a 6-semester-hour sequence either in literature or in history.

**Science electives must be two of the following: *genetics, microbiology, physics II, comparative anatomy, histology, reproductive physiology, mammalian or animal physiology, parasitology, embryology or immunology.*

These requirements will be waived if the student has a bachelor's degree.

Will accept web based or correspondence course.

University of Calgary

Two Introductory Biology Courses

Two Introductory Chemistry Courses

One Introductory English Course (must contain a writing component)

One Introductory Organic Chemistry

One Introductory Statistics Course

One Introductory Biochemistry Course (lab not required)

One Introductory Genetics Course

One Introductory Ecology Course

California - Davis

Courses (Quarter Hours)

General Chemistry (with lab)(Two semesters (3 quarters)) w/lab

Organic Chemistry (with lab)(Two semesters (2-3 quarters) w/lab

Physics (Two semesters (2-3 quarters)

General Biology (with lab) (Two semesters (3 quarters) w/lab

*Systemic Pysiology (One semester/quarter)

*Biochemistry (bioenergetics and metabolism) (One semester/quarter)

*Genetics (genes and gene expression) (One semester/quarter)

Statistics (One semester)

**Courses must be taken at the upper division level at a four-year university.*

Central Luzon University

No Prerequisite courses submitted (<http://admission.clsu.edu.ph/>)

Colorado State University

Courses (Semester Hours)

Biochemistry (3) (requires Organic Chemistry)

Genetics (3)

Physics with a lab (4)

Statistics (3)

Laboratory associated with a biological science course (1)

Laboratory associated with a chemistry class (1)

English composition (3)

Social sciences and humanities (12)

Electives (30)

Science electives recommended

Copenhagen, University of

No Prerequisites Submitted

(http://healthsciences.ku.dk/education/exchange_guest_students/)

Cornell University

Courses (Semester Hours)

English composition / writing courses* (full year) (6)
Biology or zoology with labs (full year*) (6)
Physics with labs (full year) (6)
Inorganic (or general) chemistry with lab (full year) (6)
Organic chemistry (One semester) (3)
(Lab not required, but recommended)
Biochemistry (Half year required, full year recommended) (4)
Advanced Life Sciences Course (3)
(Lab not required, but recommended)
Non-prerequisite elective credits needed (26)

Edinburgh, University of

Courses (Semesters)

All applicants are required to have completed the required prerequisite courses for the programme. Subjects include:
Organic Chemistry
Inorganic Chemistry
Biochemistry
Biology/zoology
Physics
Mathematics/Statistics
Also highly recommended are: Genetics, Microbiology, and Cellular Biology

Florida, University of

Courses (Semester Hours)

Biology (general, genetics, microbiology)(15)
Chemistry (inorganic, organic, biochemistry)(19)
Physics (8)
Mathematics (calculus, statistics)(6)
Animal Sciences (introduction to animal science, animal nutrition)(6)
Humanities (9)
Social Sciences (6)

English (2 courses in English composition)(6)
Electives (6)

Georgia, University of

Courses (Semester Hours)

English (writing intensive)(6)
Humanities or Social studies(14)
General biology with lab (for science majors)(8)
Advanced biological science(8)
Chemistry with lab – Inorganic (8)
Chemistry with lab – Organic (8)
Physics with lab (8)
Biochemistry (lab not required) (3)
**300/3000 level or higher biology courses that have general biology as a prerequisite. Nutrition, behavior and ecology courses typically do not count towards the advanced biological sciences requirement*

Glasgow, University of

Applicants are expected to have completed at least 2 years pre-veterinary or science courses at College or University, with a minimum of one year in Chemistry (including organic chemistry and organic chemistry lab). We would expect high grades in all science subjects. US applicant should have a minimum 3.4 GPA (4 point scale), and to have achieved at 3.0 in Science.

Guelph, University of

Courses (Semesters)

Biology (9)
Biochemistry (3)
Statistics (3)
Genetics (3)
Humanities and/or social sciences (6)

Illinois - Urbana, University of

Courses* (Semester Hours)

Biological Science (with lab) (8)

Chemical Sciences (16)

Physics (with lab) (8)

English Composition (3)

Speech Communication (3)

Humanities / Social Science (12)

**With a bachelor's degree. Without a bachelor's degree, all above must be taken.*

Iowa State University

Courses (Semester Hours)

General chemistry – 1 year series (with lab) (7)

Organic chemistry - 1 year series (with lab) (7)

Biochemistry (3)

Biology – 1 year series (with labs) (8)

Genetics – (Upper level Mendelian and molecular) (3)

Mammalian anatomy and/or physiology (3)

Oral communication – (interpersonal, group or public speaking) (3)

English composition (6)

Humanities and social sciences (8)

Physics (Physics 1 – first semester of a 2 semester series) (4)

Kansas State University

Courses (Semester Hours)

Expository writing I and II (6)

Public speaking (2)

Chemistry I and II (8)

General Organic chemistry with lab (5)

General Biochemistry (3)

Physics I and II (8)

Principles of biology or zoology (4)

Microbiology with lab (4)

Genetics (3)

Social Science and/or Humanities (12)

Electives (9)

Lincoln Memorial University

Course Requirements (Semester / Quarter Hours)

Biology (with laboratory) (8/10)

Genetics (3/4)

Biochemistry (3/4)

Advanced Science Electives (8/10)

Organic Chemistry (with laboratory) (6/8)

General Chemistry (with laboratory) (8/10)

Physics (3/4)

English (6/8)

Probability and Statistics (3/4)

Social and Behavioral Sciences (6/8)

Electives (6/8)

1. *Subject to change in the future*
2. *Upper division courses (300 level or higher) including Anatomy, Animal Science, Cell Biology, Immunology, Microbiology, Molecular Biology, Physiology, Virology*
3. *Potential courses include, but are not limited to: Anthropology, Economics, Geography, Philosophy, Political Science or Sociology. Also included: Ethics, Critical Thinking, Cultural Diversity, Social Responsibility, One Health, Human Animal Bond.*
4. *Potential courses include but are not limited to: Business, Communications, Foreign Language, History, public Speaking*

Louisiana State University

Courses (Semester Hours)

General biology (8)

Microbiology with lab (4)

Physics (6)
General chemistry (8)
Organic chemistry (3)
Biochemistry (3)
English composition (6)
Speech communication (3)
Mathematics (5)
Electives (20)

Massey University

Courses (Semester Hours)

Applicants are required to have completed at least two full years of full-time, largely science based university education. Applicants need to have passed classes equivalent to the 4 standard Massey University veterinary prerequisite classes:

Physics sequence (1 year)
Organismal biology + animal biology/vertebrate zoology
General chemistry plus organic chemistry
First year bio series + Cellular/molecular biology or genetics

Melbourne, University of

Courses (Semester Hours)

Entrance to the DVM as a graduate: Applicants will require a science degree from the University of Melbourne or another institution. Examples of appropriate degrees include Bachelor's degrees with majors in: Agriculture, Animal Science, Biochemistry, Biomedicine, Physiology, or Zoology.

Prerequisites for entry as a graduate are at least one semester of student in each of general or cellular biology and biochemistry as part of a science degree. <http://futurestudents.unimelb.edu.au/info/international>

Michigan State University

Courses (Semester Hours)

English composition (3)
Social and Behavioral Sciences (6)
Humanities (6)

General Inorganic Chemistry (w/Lab) (3)
Organic chemistry (w/lab) (6)
Biochemistry (Upper division) (3)
General Biology (w/lab) (6)
College Algebra and Trigonometry (3)
College Physics (w/lab) (8)
Nutrition (3)
Genetics (3)
Cell Biology (eukaryotic) (3)
Microbiology (w/lab) (4)

Midwestern University

Courses (Semester Hours)

Biology (8)
General Chemistry with lab (8)
Organic Chemistry with lab (8)
Mathematics (6)
Physics with lab (4)
English Composition (6)
Science Electives (8)

Minnesota, University of

Courses (Semester Hours)

English (2 courses) (6)
College algebra, pre-calculus or calculus (3)
General chemistry (2 courses, plus 2 labs) (6)
Organic chemistry (3)
Biochemistry (3)
General biology with lab (3)
Zoology with lab (3)
Genetics (3)
Microbiology with lab (3)
Physics (2 courses) (6)
Liberal Education (3 courses) (9)
Statistics (3)

Mississippi State University

Courses (Semester Hours)

English composition (6)
Speech or technical writing (3)
Mathematics (college algebra or higher) (6)
General biology with lab (8)*
Microbiology with lab (4)
General chemistry with lab (8)*
Organic chemistry with lab (8)*
Biochemistry (3)
Physics (can be Trig-based) (6)
Advanced (upper-level) science electives (12)
Humanities/fine arts/social and behavioral sciences (15)
**indicates requirement of a minimum 6 hours of lecture and 2 hours of laboratory.*

Missouri, University of

Courses (Semester Hours)

English composition or communication (6)
College algebra or more advanced (3)
Physics (5)
Biological sciences (10)
Social sciences or humanities (10)
Biochemistry with organic chemistry pre-req (3)
Electives (10)

Montreal, University of

Courses (Level)

Physics (101, 201, 301–78)
Chemistry (101, 201, 202)
Biology (301, 401)
Mathematics (including calculus) (103, 203)

Murdoch University

Courses (Level)

Students who have completed one or more years of tertiary study and who have satisfied the appropriate prerequisites are eligible to apply for entry into second year of the 5 year program. Currently, prerequisites includes units in:
Chemistry
Statistics & Data analysis
Introductory animal anatomy and physiology
Cell and molecular biology and Vertebrae structure and function
Plus a unit that explores the basic building blocks for science students and another that introduces the history and philosophy of science and the interconnected nature of scientific disciplines.
Principles of livestock science in an Australian context is also a prerequisite

North Carolina State University

Courses (Semester Hours)

Animal nutrition (3)
Biochemistry (3)
Biology (4)
Calculus or logic (3)
Chemistry, general (8)
Chemistry, organic (8)
English composition/communications or public speaking (6)
Humanities/social sciences (6)
Microbiology (4)
Physics (8)
Statistics (3)
Genetics (4)

Ohio State University, The

Courses (Semester Hours)

Biochemistry* (3-10)
If Biochemistry is taught as a two-course sequence, both courses must be taken. Lab is not required.
Microbiology* With Lab (3-5)
Physiology* (5-10)

If Physiology is taught as a 2-part sequence, both parts are required. All systems must be covered. Lab is not required. Some schools may offer this as a combined Anatomy/Physiology course.

Communication* (3-5)

Basics of public speaking & critical thinking

Science Electives (35)

Includes, but not limited to: Biology, Chemistry, anatomy, immunology, cell biology, molecular genetics, animal science, ecology, environmental science or other science courses.

Humanities / Social Science Electives (16)

Includes, but not limited to: History, economics, anthropology, psychology, art, music, literature, languages, writing and ethics.

*= Capstone courses

The number of hours provided is a guideline. In assessing course content for equivalency, actual hours may vary for your institution. In some cases a multiple course series may be needed to fulfill prerequisite coursework. If you are unsure of whether or not a course will be accepted to fulfill a prerequisite, please contact us at: prospective@cvm.osu.edu

Oklahoma State University

Courses (Semester Hours)

Animal nutrition (3)

Biochemistry (3)

Biology/Zoology (8)

English, Speech or Composition (6)

Genetics (3)

Humanities/social sciences (6)

Inorganic Chemistry (8)

Mathematics (college algebra, no statistics) (3)

Microbiology (4)

Organic Chemistry (8)

Physics (Physics I & II) (8)

Oregon State University

Courses (Semester Hours)

General Biology I (3)

General Biology II (3)

Upper Division Biology w/ Lab (4)

Physics I (4)

Physics II (4)

General Chemistry I w/ Lab (4)

General Chemistry II w/ Lab (4)

Organic Chemistry I (3)

Biochemistry I (4)

Genetics (3)

Calculus or Algebra & Trig (4)

Statistics (3)

Physiology (Human or Animal) (3)

English (4)

Humanities or Social Sciences (8)

Public Speaking (3)

Pennsylvania, University of

Courses (Semester Hours)

English (including composition) (6)

Physics with lab (8)

Chemistry – General (with at least 1 lab) (8)

Chemistry – Organic (4)

Biology or zoology (covering basic genetics & cell bio) (9)

Biochemistry (3)

Microbiology (3)

Humanities or social sciences (6)

Calculus & statistics (any intro Stats course) (6)

Electives (37)

Prince Edward Island, University of

Courses (Semester Hours)

Physics with lab

Biology (2 courses with labs having an emphasis on animal biology)

Genetics (1 course with lab)

Microbiology (1 course with lab)

Mathematics (2 courses, one of which being Statistics)

Chemistry (3 courses with labs, one being Organic Chemistry)

English (2 courses, one of which being English Composition)

Humanities and social sciences (3 courses)

Electives (5 courses)

Purdue University

Courses (Semester Hours)

Inorganic chemistry with lab (2)

Organic chemistry with lab (2)

Biochemistry (upper level) (1)

Biology with lab (2)

Genetics (1)

Microbiology with lab (1)

Animal Nutrition (1)

Physics with lab (2)

Calculus (1)

Statistics (1)

English composition (1)

Communication (1)

Humanities (3)

Queensland, University of

To gain entry into the University of Queensland program, a non-resident (international) student must have completed a high school qualification that is deemed equivalent to the Queensland Year 12 high school qualification and have the following subject pre-requisites or their equivalent:

English

Chemistry

Mathematics

Either Physics or Biology

<http://uq.edu.au/international-students/undergraduate-entry-requirements>

Ross University

Courses (Semester Hours)

Pre-Requisite courses cannot be more than 10 years old.

Biology (two semesters) with lab (8)

Cell Biology or Genetics (3)

Chemistry (General or Inorganic) with lab (8)

Biochemistry (3)

Physics with lab (4)

Mathematics (3)

English (3)

Electives / Humanities / Social Sciences (9)

Once of the elective courses must be one of the following: Comparative anatomy, medical terminology, microbiology, nutrition, physiology, foreign language, public speaking, introduction to business.

Royal Veterinary College

Physics with laboratory (4 Semester credits)

Biochemistry (4 Semester credits)

Principles of biology, general biology, animal biology or zoology (8 Semester credits)

General chemistry or fundamentals of chemistry, or inorganic chemistry (recommended)

Organic chemistry (8 Semester credits)

Mathematics or statistics (including Algebra) (4 Semester credits)

Saskatchewan, University of

Courses (Semester Hours)

English (6)

Physics (3)

Biology (6)

Genetics (3)
Introductory Chemistry (6)
Organic Chemistry (3)
Mathematics or Statistics (6)
Biochemistry (3)
Microbiology (3)
Electives (21)

Seoul National University

Courses (Semester Hours)

<http://en.snu.ac.kr/apply/info>

St. George's University

Courses (Semester Hours)

General Biology or Zoology with lab (8)
Inorganic Chemistry (General or Physical) with lab (8)
Organic Chemistry with lab (4)
Biochemistry (3)
Genetics (3)
Physics with lab (4)
Calculus, Computer Science or Statistics (3)
English (3)

St. Matthews University

Courses (Semester Hours)

General Biology* (6)
General Chemistry* (6)
Organic Chemistry* (3)
Biochemistry (3)
Language Arts (English) ** (3)
College Math or Computer Science (3)

**These course must include an attached laboratory*

***A student may substitute any course that has a writing component, such as a term paper or written project, for the Language Arts requirement*

Sydney, University of

General Chemistry (Physical and Inorganic)
Organic Chemistry
Biology
Biochemistry

Tennessee, University of

Courses (Semester Hours)

General inorganic chemistry with lab (8)
Organic chemistry with lab (8)
General biology/zoology with lab (8)
Cellular/Molecular biology* (3)
Genetics (3)
Biochemistry, exclusive of laboratory** (4)
Physics with lab (8)
English composition (6)
Social sciences/humanities (18)

**It is expected that this requirement will be fulfilled by a course in cellular or molecular biology. An upper-division cell or molecular biology course is preferred.*

*** This should be a complete upper-division course in general cellular and comparative biochemistry. Applicants are strongly encouraged to take additional biological and physical science courses especially comparative anatomy, mammalian physiology, microbiology with laboratory, and statistics.*

Texas A&M

Courses (Semester Hours)

General Biology with lab (4)
General Microbiology with lab (4)
Genetics (3)
Animal Nutrition or Feeds and Feeding (3)
Inorganic Chemistry with lab (8)
Organic Chemistry with lab (8)
Biochemistry (Lecture hours only) (3)
Statistics (Upper-level) (3)
Physics I & II with lab (8)
Composition and Rhetoric (3)

Introduction to Psychology (3)
Technical Writing (3)
Speech Communications (3)

Tokyo, University of

Courses (Semester Hours)

<http://www.u-tokyo.ac.jp/en/index.html>

Tufts University

Courses (Semester Hours)

Biology (with lab) (8)
Chemistry (with lab) (8)
Organic chemistry (with lab) (8)
Biochemistry (3)
Physics (3)
Genetics (unless included in biology) (3)
Math/Statistics (6)
English/ Speech (6)
Humanities and Fine Arts (6)
Social and Behavioral sciences (6)

Tuskegee University

Courses (Semester Hours)

English or Written Composition (6)
Mathematics (6)
Social Sciences / Humanities (6)
Liberal Arts (6)
Advance Biology (300 Level or Above)** (9)
Biochemistry w/Lab (4)
Advance Biology Elective (8)
Organic Chemistry w/Lab (4)
Physics w/Lab (8)
Introduction to Animal Science (3)
Animal Nutrition (3)

***Advanced biology courses, e.g., anatomy, physiology, ecology, immunology, zoology, microbiology, genetics, toxicology, and histology.
~ All required science courses (advanced biology, biochemistry, chemistry, physics) must have been completed within six (6) calendar years of the time of admission.*

Universidad VERITAS

Courses (Semester Hours)

<http://cip.veritas.cr/admission-process/>

University of Mexico (UNAM)

Courses (Semester Hours)

Mathematics (4 semesters)
Physics (4 semesters)
Inorganic and Organic Chemistry (4 semesters)
Principles of Biology and General Biology (4 semesters)
Social Sciences/Humanities (6 semesters)
Electives (2 semesters)
Selected topics on biology, statistics, morphophysiology or physicochemistry.
A Science degree, including at least one semester's study in each of general/cellular biology and biochemistry.
Total semesters 24

Universiteit Utrecht

Courses (Semester Hours)

<http://www.uu.nl/en/education/veterinary-education/international-education>

University College - Dublin

Courses (Semester Hours)

Physics with lab (1)
Biochemistry with lab (1)
General biology (1)
General inorganic chemistry (1)

Microbiology (1)
Cellular biology (1)

**Course completion deadline: all required courses should be completed prior to August of the year of admission.*

VetAgro Sup

Courses (Semester Hours)

<http://www.vetagro-sup.fr/en/formations/cursus-veterinaire/admission/>

Virginia / Maryland Regional College

Courses (Semester Hours)

General Biology (8)
Organic chemistry (6)
General or Introductory Physics (8)
Biochemistry (3)
Humanities/social sciences (6)
Math: algebra, geometry, trigonometry, calculus or statistics (6)
English (3 semester hours must be English composition or a writing-intensive designated course) (6)

Washington State University

Courses (Semester Hours)

Biology with lab (8)
Inorganic chemistry with lab (8)
Organic chemistry with lab (4)
Physics with lab (4)
Math (algebra or higher) (3)
Genetics (3-4)
Biochemistry (3)
Statistics (methods) (3)
Arts & humanities/social science/history* (21)
English composition/communication* (6)
**General education requirements will be waived if student has a bachelor's degree*

Western University of Health Sciences

Courses (Semester Hours)

Organic chemistry with lab (3)
Biochemistry or physiological chemistry (3)
Upper-Division Biological & Life Sciences with lab* (9)
Microbiology* (3)
Upper-Division Physiology (Animal, Human or Comparative Only)(3)
Genetics* (3)
General or College Physics with Labs (6)
Statistics (General, Introductory, or Bio-) (3)
English Composition (6)
Humanities / Social Sciences (9)

Wisconsin, University of

Courses (Semester Hours)

Biology or zoology (4)
Genetics or animal breeding (3)
General chemistry (8)
Organic chemistry (3)
Biochemistry (3)
General Physics (6)
Statistics (3)
English composition or journalism (6)
Social sciences/humanities (6)
Anatomy (3)*
Microbiology (3)*
Physiology (3)*
Cell/Molecular Biology (3)*
**Recommended*

Applicants are encouraged to prepare themselves for the curriculum by taking additional upper-level science courses such as anatomy, physiology, microbiology, or cell/molecular biology.

CHANGE LOG – 2015/2016

- 03/24/2015: Document updated for VMCAS 2016
- 04/06/2015: VA/MD changed the hours requirement for Organic Chemistry from 8 semester hours to 6 semester hours
- 04/09/2015: Wisconsin: Anatomy, Microbiology, Physiology & Cell/Molecular Biology reclassified as “Recommended” courses not required.
- 04/09/2015: Western University: Removed Oral Communication