

Laboratory Science Mathematics/Statistics/Computing

Curricular Outcome: Ability to think and function as a scientist

College of Science students will complement critical thinking and analytical abilities gained within their major area of study by completing a two-course sequence and related laboratory experience in a science outside of their major. Students are also required to develop proficiency and knowledge in the areas of mathematics, statistics, and computer science.

Laboratory Science

The laboratory science requirement is met by completion of a one-year sequence of laboratory science.

College of Science students are strongly encouraged by our faculty to complete laboratory courses with in-person laboratory experiences.

List of Approved Lab Science Courses

Mathematics

- The Mathematics requirement is met by completion of a one-year sequence of single variable calculus. The following sequences are approved to meet the math requirement:
MA 16100: Plane Analytic Geometry and Calculus I (5 cr.) AND MA 16200: Plane Analytic Geometry and Calculus II (5 cr.) OR MA 16500: Analytic Geometry and Calculus I (4 cr.) AND MA 16600: Analytic Geometry and Calculus II (4 cr.)

Note: MA 16100/MA 16500 AND MA 16200/16600 may be interchanged to meet the single variable calculus requirement.

Biology Majors only: MA 16010: Applied Calculus I and MA 16020: Applied Calculus II

Statistics

The Statistics requirement is met by completion of an approved statistics course in a student's program of study (major). Check specific department and major requirements for approval of the following courses:

- STAT 30100: Elementary Statistical Methods
- STAT 35000: Introduction to Statistics
- STAT 35500: Statistics for Data Science
- STAT 50300: Statistical Methods for Biology
- STAT 51100: Statistical Methods

Computing

The Computing requirement is met by completion of a computing course in a student's program of study (major). Check specific department and major requirements for approval of the following courses:

- CS 15900: C Programming
- CS 17600: Data Engineering in Python
- CS 17700: Programming With Multimedia Objects
- CS 18000: Programming I

- ECE 49500: Intro to Computer
- ENGR 14200: Honors Creativity and Innovation and Engineering Design II
- ENGR 16200: Honors Introduction To Innovation And The Physical Science Of Engineering Design II
- Three (3) of the following one (1) credit courses
 - MA 16201: The Data Science Labs in Probability
 - MA 29000: The Data Science Labs in Multivariate Calculus
 - MA 39000: The Data Science Labs in in Fourier Analysis
 - MA 49000: The Data Science Labs in on Probability
- TDM 10100: Data Mine I AND TDM 10200: Data Mine II

Archived Approved computing courses which are not longer offered:

- CS 15800: C Programming (effective Fall 2009)
- CS 19000: Introduction to Computational Thinking (Fall 07, Spring 08, Fall 08)
- CS 19000: Data Engineering in Python
- CS 19000: Data Engineering in Python
- STAT 29000: Introduction to Big Data Analysis
- STAT 19000: Data Mine I AND STAT 19000: Data Mine II

ADVISING

All Aboard Purdue

Academic & Registration Resources

Advisor Directory

CoS Advising Policy

CODO Information

CODO Procedure and Advising

Dual Degree Policy

CURRICULUM AND DEGREE REQUIREMENTS

Majors

Minors

Grade Appeals

Pre-professional Programs

Earning Requirements Through Experience

Degree+

STUDENT RESOURCES

Scholarships

Registrar's Office Student Resources

Tutoring Services/Help Sessions

Student and Family FAQ

INTERNATIONAL STUDENTS

Global Science Partners Program

RESEARCH

Resources

Links

Undergraduate Research Poster Symposium

Purdue University College of Science, 150 N. University St, West Lafayette, IN 47907 • Phone: (765) 494-1729, Fax: (765) 494-1736

Student Advising Office: (765) 494-1771, Fax: (765) 496-3015 • **Science IT**, (765) 494-4488

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