Courses Available to Help Prospective Students Satisfy Math Expectations or Refresh Their Skills

Candidates for admission to the program should have a strong math background, typically demonstrated by successful completion of at least two semesters of calculus, a calculus-based probability course, linear algebra (or an equivalent course or courses), and computer programming (formal course or experience). Most area colleges and universities offer acceptable courses. We have listed several for each of the requirements. If you identify other courses that you would like us to consider, please send a link and course description to accmp@virginia.edu.

Probability (calculus-based)
Probability is the subject we most often find that prospective students lack. It is listed first on this document, for convenience, but it should be taken only after completing at least one semester of calculus. If it has been several years since you completed your calculus courses, you should do a review before beginning probability.

In-Person Probability Courses
University of Virginia APMA 3100
Northern Virginia Community College MTH 243 (not available every semester or in all locations)
George Mason University STAT 346
George Washington University STAT 4157 or 4189
Liberty University MATH 211
Virginia Commonwealth University MATH 309 or STAT 309 – Fall semester only
University of Richmond MATH 329

Online Probability Courses
North Carolina State University ST 370 – Fall and Spring semesters
http://distance.ncsu.edu/courses/
Oregon State University ST 314 – Click course, then choose Ecampus – Distance Ed and term http://catalog.oregonstate.edu/CourseList.aspx?subjectcode=ST&level=undergrad
OSU distance ed registration link http://ecampus.oregonstate.edu/services/admissions/
OSU Ecampus contact info http://ecampus.oregonstate.edu/forms/contact.htm
NetMath at the University of Illinois Math 461 Introduction to Probability Theory - self-paced
https://netmath.illinois.edu/math461?stu=col

Linear Algebra
We’ve found that linear algebra is the second most common course that prospective students need to take. It should be taken after the calculus sequence.

In-Person Linear Algebra Courses
University of Virginia APMA 3080
Virginia Community Colleges - MTH 285 is the equivalent course at most locations.

Online & Distance Education Linear Algebra Courses
Northern Virginia Community College MTH 285
http://eli.nvcc.edu/coursesearch.asp
University of Iowa MATH 2700 – guided independent study
http://isis5.uiowa.edu/isis/courses/details.page?ddd=22M&ccc=027&sss=EXZ&session=20113
University of Wisconsin Platteville ENGRG 5030 – fall and summer only
http://www.uwplatt.edu/disted/courses/ENGRG5030.html
Louisiana State University MATH 2085 – self-paced, by US Mail – min. 7 weeks, max. 9 months http://is.lsu.edu/coursefactsheet.asp?nid=301&Rubric=MATH&CourseNr=2085&Version=C

Calculus – 2 semesters
If you have never had any higher math, we recommend that you take at least the first course in person rather than online. If you are taking calculus as a refresher course, you may prefer online courses. Many institutions, particularly community colleges, offer placement assessments to determine readiness for courses. UC Berkeley offers an online placement exam at http://math.berkeley.edu/courses/choosing/placement-exam

In-Person Calculus Courses
University of Virginia APMA 1110 and APMA 2120
Virginia Community Colleges – In most locations you should take MTH 173 and MTH 174.
Most colleges and universities offer acceptable calculus courses. Compare course descriptions.

Online Calculus Courses
Northern Virginia Community College MTH 173 and MTH 174 http://eli.nvcc.edu/coursesearch.asp
University of North Carolina MATH 231 and MATH 232 – open enrollment, self-paced, min. 12 weeks, max. 9 months http://www.fridaycenter.unc.edu/cp/catalog/math.html#topofpage
UC Berkeley Extension Calculus X1A and X1B – open enrollment, min. 3 months, max. 6 months http://extension.berkeley.edu/catalog/math.html

Computer Science
Students must be comfortable using computer tools for problem solving. Coursework or experience with a high-level programming language (such as C++, JAVA, PHP, or Python) is needed to ensure familiarity with concepts of programming. If you have not had a course and lack significant experience, you should take a course. Most colleges and universities offer acceptable introductory courses. Look for courses primarily for math, science, and engineering majors. If you have experience, are familiar with typical applications, and you are confident in your ability to load and learn new software quickly, you may request a waiver.

In-Person Computer Science Courses
University of Virginia CS 1110
Virginia Community Colleges CSC 110

Online Computer Science Courses
Northern Virginia Community College CSC 110 http://eli.nvcc.edu/coursesearch.asp
Central Virginia Community College EGR 126 http://www.cvcc.vccs.edu/ClassSchedule.aspx

University of Virginia Community Scholar Program
Individuals can take courses on Grounds without being admitted to a degree program through the Community Scholar Program. Registration for classes is done through the School of Continuing and Professional Studies. Up to two courses per semester (day and evening courses) are available to Community Scholars by permission of the instructor on a space available basis. http://www.scps.virginia.edu/programs/program-detail/community-scholar

Please submit your articulation plan for approval prior to registering for classes. With an approved articulation plan you can be confident that the courses you have chosen will satisfy the requirements and prepare you to be successful in the program. http://amp.sys.virginia.edu/wp-content/uploads/2015/10/Articulation-Plan-Template-2015-16.docx