

A Calculus Choice for Biology Students with AP Calculus Credit

Mathematical biology, biostatistics, and bioinformatics are rapidly growing fields that offer many opportunities for people whose interests and talents include both biological and mathematical sciences. Biology students usually enroll in the Math 1016-2015 calculus sequence, but students interested in keeping options in mathematical biology and related fields open should consider enrolling in the calculus sequence taken by students majoring in engineering and the physical and mathematical sciences. This calculus sequence is the most challenging calculus sequence at Virginia Tech. It is the only calculus sequence that includes honors sections. Although these calculus courses discuss few biological applications, they prepare students to study differential equations (Math 2214) and multivariable calculus (Math 2224), subjects used in mathematically sophisticated biological models.

If you score a **3, 4, or 5 on the AP Calculus AB exam or a 3 on the AP Calculus BC exam**, you receive credit for Math 1205. Consider taking Math 1206 to complete single variable calculus. You may also take Math 1114 and / or Math 1224 to prepare to take differential equations or multivariable calculus later. In the fall, honors sections are available in both Math 1114 and Math 1224.

If you score a **4 or 5 on the AP Calculus BC exam**, you receive credit for Math 1205 and Math 1206, all 6 hours of single variable calculus. You may take Math 1114 and / or Math 1224 if you wish to prepare to take differential equations or multivariable calculus later. In the fall, honors sections are available in both Math 1114 and Math 1224.

Math 1205 – the first 3 credit hours of single-variable calculus.

Math 1206 – the final 3 credit hours of single-variable calculus.

Math 1114 – a 2-credit introduction to linear algebra; a prerequisite for the differential equations course.

Math 1224 – a 2-credit course on vector methods in calculus; a prerequisite for multivariable calculus.

To discuss these calculus choices with someone from the math department, contact:

Linda Powers

McBryde 451

231-8262

powers@math.vt.edu.

If you choose one of the courses discussed above, please contact Linda Powers no later than the beginning of the fall semester.

This sheet is available on the web at <http://hobbes.math.vt.edu/ugFlowCharts.php> under the title Biology Majors with AP Calculus Credit.