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MEMORANDUM

TO: Pamela Coonan

FROM: Jeremiah Hackett

DATE: 21 November 2019

SUBJECT: Math Strand Update (BIOLBS and ECOLBS) for 2020-2021 Curriculum Updates

The department of Ecology & Evolutionary Biology feels that it is appropriate for our majors to take MATH 119A. MATH 119A is a math course using real examples drawn from biology, ecology, and physiology. We have deemed it a viable alternative to Calculus I.

The Math department has submitted the course for the M-Strand. As a result, we believe it is best for our students to have a custom M-Strand so that we can opt in to this course while still retaining Calculus I requirements.

We accept MATH 119A for the Calculus I requirement for the following majors:

BS in Biology (Sub-Plan: Biomedical Sciences)

BS in Biology (Sub-Plan: Organismal Biology)

BS in Ecology & Evolutionary Biology

These majors use skills in calculus in their major, since a required course in the program requires Calculus I. MATH 119A has significant overlap in content to prepare our students for the rigors of their coursework. These three majors do not require Calculus II.

Other majors that accept MATH 119A include Physiology and Molecular & Cellular Biology. PSIO and MCB are often majors that our students switch into. Other majors that our students tend to change into do not require Calculus I. Since 68% of students beginning in Biology change majors, we do not pre-schedule any freshmen into MATH 119A.

We would like for these three majors to have a custom M-Strand made of the following courses:

MATH 119A, MATH 122B, MATH 125

Other majors on campus have comparable versions of this where they have a custom strand that includes Calculus I plus an additional course that is suitable for the major. These programs include Psychological Science, Nursing, Accounting, and Communication.



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