

University of Wisconsin-Whitewater
Curriculum Proposal Form #4R
Change in or Deletion of an Existing Course

Type of Action (check all that apply)

- Add Cross-listing *
- Course Deletion
- Number Change
- (other)

- Pre-requisite Change
- Technological Literacy
- Title Change
- Writing Requirement

Effective Term: 2141 (Spring 2014)

Current Course Number (*subject area and 3-digit course number*): Biology 141

Cross-listing (*if applicable*):

New Course Number (*subject area and 3-digit course number*):

Cross-listing (*if applicable*):

***If adding a cross-listing, include the following:**

Required in the major:

Required in the minor:

Number of credits:

Lab hours/week:

Contact hours/week:

Repeatable

Current Course Title: Introductory Biology I

New Course Title:

25-Character Abbreviation (*if new title*):

Sponsor(s): Ellen Davis

Department(s): Biological Sciences

College(s): Letters and Sciences

List all programs that are affected by this change:

All emphases in biology

If programs are listed above, will this change affect the Catalog and Advising Reports for those programs? If so, have Form 2's been submitted for each of those programs?

(Form 2 is necessary to provide updates to the Catalog and Advising Reports)

NA Yes They will be submitted in the future

Proposal Information: ([Procedures for form #4R](#))

I. Detailed explanation of changes (use FROM/TO format)

FROM: Coreq: MATH 141.

TO: Prereq: C or better in MATH 141.

II. Justification for action

Biology 141 and 142 together serve as the year-long introduction to Biology that all biology majors and minors must take before all other courses within the major/minor. Recently, there has been an increase in the number of students who do not successfully pass these courses (C or better is required), and at least some of this lack of success may be due to their preparedness in terms of math. Based on data from 2001-2011, approximately 70% of students whose first UWW math course is math 152 pass Biology 141 with a C or better, whereas only 50% of those whose first math course is Math 141 pass Biology 141 with a C or better. Moreover, fewer than 40% of these latter students go on to pass Biology 142 with a C or better. We propose to change the coreq of Math 141 to a prereq of Math 141 for Bio 141 in order to accomplish the following:

1. Ensure students are better prepared in terms of math before entering the biology major. This change also helps to ensure that less well-prepared students have more time to adjust to life on campus, mature and gain study skills.
2. Reduce the number of students who must repeat Biology 141 or 142 (or both), which will also serve to reduce the burgeoning demand for those courses.
3. Close the loophole that currently exists that allows students to enroll in both Biology 141 and Math 141, but then drop Math 141, and yet possibly continue on in biology (with marginal grades). Such students lack some of the quantitative skills that can help increase success in the major.
4. Clarify and highlight for transfer students who may have credit for Biology 141 and 142 that they do need to take (or transfer credit for) Math 141. By adding this prerequisite to Biology 141, Biology 142 and Biology 251 (genetics, frequently the first course students take beyond Biology 141 and 142) we hope to make the math requirement more transparent, and ensure that students take it earlier in their career.

Note that as Bio majors must also complete Math 152, which itself requires a C or better in Math 141, this proposed change should not affect demand for any math courses, but only the timing with which some students take them relative to when they take biology courses.