

## UMBC UGC Instructions for Change in Existing Course Form (Revised 2/2015)

**Course number & title:** Enter the current course number and title of the course at the top of the page.

**Date submitted:** The date that the form will be submitted to the UGC.

**Effective date:** The semester that the change will be effective, if approved.

**Contact information:** Provide the contact information of the Chair or UPD of the department housing the course. If the course is not housed in a department or program, then provide the same information for the head of the appropriate academic unit. (See UGC Procedures.) If another faculty member should also be contacted for questions about the request and be notified about UGC actions on the request, include that person's contact information on the second line.

**Course information:** Provide all of the current information for this course. Check the "change" column for aspects of the course that will be changed by this proposal and provide the specific changes. Unchanged fields may be left blank under the "proposed" column. *Note: all 300- and 400-level courses must have prerequisites or recommended preparation.*

**Course number:** For cross-listed courses, provide all the numbers for the course.

**Transcript title:** Limited to 30 characters, including spaces. Leave the current transcript title blank if this is not known.

**Recommended Course Preparation:** *Please note that all 300 and 400 level courses should have either recommended course preparation(s) or prerequisite(s) and that 100 or 200 level courses may have them.*

Here fill in what previous course(s) a student should have taken to succeed in the course. These recommendations will NOT be enforced by the registration system. Please explain your choices in the "rationale" (discussed below).

**Prerequisite:** *Please note that all 300 and 400 level courses should have either recommended course preparation(s) or prerequisite(s)* Here fill in course(s) students need to have taken before they enroll in this course. These prerequisites will be enforced through the registration system. Please explain your choices in the "rationale" (discussed below).

**NOTE:** Please use the words "AND" and "OR", along with parentheses as appropriate, in the lists of prerequisites and recommended preparation so that the requirements specified will be interpreted unambiguously.

**NOTE:** Unless otherwise indicated, a prerequisite is assumed to be passed with a "D" or better.

**Maximum total credits:** This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.

**Grading method(s):** Check all that apply.

**Current catalog description:** Provide the course description as it appears in the current undergraduate catalog or since the last UGC-approved change.

**Proposed catalog description:** If this proposal involves a change in the course description, provide the exact wording of the course description as it will appear in the next undergraduate catalog. Course descriptions should be a) no longer than 75 words, b) stated in complete sentences, and c) avoid reference to specific details that may not always pertain (e.g., dates, events, etc.). Leave blank if this proposal does not change the course description. Course descriptions should not repeat information about prerequisites (which are always listed alongside the course description).

**Rationale:** Provide a brief explanation for the need for the proposed changes.

**Cross-listed courses:** Requests to change cross-listed courses must be accompanied by letters of support via email from all involved department chairs. Proposals for the addition of a cross-listing to an existing course must include as a part of the rationale the specific reason why cross-listing is appropriate. Email from all involved department chairs is also required when cross-listing is removed and when a cross-listed course is discontinued. Please note that Special Topics cannot be cross-listed.

*Note: the UGC form is a Microsoft Word form. You should be able to enter most of the information by tabbing through the fields. The document is protected. In the rare case that you need to unprotect the document, use the password 'ugcform'. Beware that you will lose all the data entered in the form's fields if you unlock and lock the document.*

**UMBC UGC Change in Existing Course: BIOL 312L: Modeling in the Life Sciences**

Date Submitted: 4/18/2017

Proposed Effective Date: Spring 2018

	Name	Email	Phone	Dept
Dept Chair or UPD	Philip Farabaugh	<a href="mailto:farabaug@umbc.edu">farabaug@umbc.edu</a>	53081	BIOL
Other Contact	David Eisenmann	<a href="mailto:eisenman@umbc.edu">eisenman@umbc.edu</a>	52256	BIOL
Other	Nichole Zang Do	<a href="mailto:Zang.do@umbc.edu">Zang.do@umbc.edu</a>	58071	BIOL

**COURSE INFORMATION:** (please provide all information in the “current” column, and only the information changing in the “proposed” column)

change		current	proposed
<input type="checkbox"/>	Course Number(s)	BIOL 312L	
<input type="checkbox"/>	Formal Title	Modeling in the Life Sciences	
<input type="checkbox"/>	Transcript Title (≤30c)	Modeling in Life Sci	
<input type="checkbox"/>	Recommended Course Preparation		
<input checked="" type="checkbox"/>	Prerequisite <b>NOTE:</b> Unless otherwise indicated, a prerequisite is assumed to be passed with a “D” or better.	BIOL 300L, STAT 350 or MATH 151 or MATH 155 with a grade of “C” or better	You must have completed BIOL 300L and [STAT 350 or STAT 355 or MATH 151 or MATH 155] with a grade of “C” or better.
<input type="checkbox"/>	Credits	2	
<input type="checkbox"/>	Repeatable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Max. Total Credits	2	<b>Max. Total Credits:</b> This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.
<input type="checkbox"/>	Grading Method(s)	<input checked="" type="checkbox"/> Reg (A-F) <input checked="" type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail	<input type="checkbox"/> Reg (A-F) <input type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail

**CURRENT CATALOG DESCRIPTION:**

Humans possess a superior ability to generate new knowledge by creating and manipulating abstract models of the world and by extrapolating from past experiences. This natural ability reaches its full potential when it is enhanced with the tools of experimental design, mathematics, logic, and computer simulation. BIOL 312L will be offered as a practical guide to creating and using models in the context of life sciences laboratory research. It will include classroom lectures, activities and computer applications intended to illustrate and implement the five basic elements of modeling: experimental design, data acquisition, analysis, model formulation, and simulation. Through the course, students will address a minimum of four concrete biological problems by defining key physical quantities to be measured, applying data visualization techniques to uncover trends, drawing statistically valid inferences, formulating algebraic and analytical models, and performing computer simulations.

**PROPOSED CATALOG DESCRIPTION** (no longer than 75 words): leave blank if no changes are being proposed to the catalog description. NOTE: information about prerequisites should NOT appear in the catalog description.)

**RATIONALE FOR CHANGE:**

BIOL majors have the option to take either STAT 350 OR STAT 355 for the major requirements. However, this course did not include the option of STAT 355 in its pre-reqs. This course change updates this so that students who decide to take STAT 355 may register for BIOL 312L.

