

**UMBC UGC Change in Existing Course: BIOL 466 Population and Conservation Genetics**

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Proposed Effective Date: Spring 2017

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**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 466	
<input checked="" type="checkbox"/>	Formal Title	Population and Quantitative Genetics	Population and Conservation Genetics
<input checked="" type="checkbox"/>	Transcript Title (≤30c)	Population and Quantitative Genetics	Population & Conservation Gen
<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.	You must have completed BIOL 142, BIOL 302, BIOL 303 and STAT 350 with a grade of “C” or better	
<input type="checkbox"/>	Credits	4.00	
<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	4.00	<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 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:**

The emphasis in this course is the study in natural populations of characters whose variation is controlled by multiple genes. The foundations in Mendelian and population genetics are described, followed by a comprehensive treatment of the field of quantitative genetics and then by a discussion of the place of quantitative genetics in behavioral genetics, physiological ecology and in population biology in general.

**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.)

This course provides a comprehensive overview of the fields of population and conservation genetics. Principles of population genetics are needed to understand evolution, epidemiology, and conservation biology. Forces and processes involved in shaping genetic variation, methods of measuring genetic variation and structure in natural populations, as well as strategies for worldwide conservation of endangered species will be emphasized. The course is a hybrid course and consists of lecture, primary literature discussions, and experimental computer simulations for analyzing or modeling population genetic data.

**RATIONALE FOR CHANGE:** To update the course name and description to what is currently being taught in the course.

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