

1

Missouri State University Curricular Proposal Course Change or Deletion

Department: Biology

Date: September 16, 2014

Check one: This is a change to X an existing COURSE
_____ an existing REGULAR (i.e. permanent) SECTION of a variable content course

Present Course Code and Number: BIO 551 Course Title: Experimental Design for Biologists

Revised Catalog Description (Copy/paste present description from online catalog, strikethrough all deletions, and insert/bold new information.)

BIO 551 Experimental Design for Biologists

Prerequisite: Grade of B-minus or better in BIO 550.

The design and analysis of biological experiments, with an emphasis on the choice and interpretation of inferential statistics. Topics covered include causal inference, statistical power, general linear models, and repeated measures designs. The use of computer software to analyze real data sets from the biological literature is emphasized. May be taught concurrently with BIO 651. Cannot receive credit for both BIO 651 and BIO 551.

Credit hours: 2 Lecture contact hours: 1 Lab contact hours: 2

Typically offered: Spring

Complete New Catalog Information

BIO 551 Experimental Design for Biologists

Prerequisite: Grade of B-minus or better in BIO 550.

The design and analysis of biological experiments, with an emphasis on the choice and interpretation of inferential statistics. Topics covered include causal inference, statistical power, general linear models, and repeated measures designs. The use of computer software to analyze real data sets from the biological literature is emphasized. May be taught concurrently with BIO 651. Cannot receive credit for both BIO 651 and BIO 551.

Credit hours: 2 Lecture contact hours: 1 Lab contact hours: 2

Typically offered: Spring

What is changing? Check all boxes that apply.

- Course Deletion
- Course Code
- Course Number
- Title
- Prerequisite
- Credit Hours/Contact Hours
- Periodicity
- Description

Reason for Proposed Change or Deletion

BIO 551 is taught concurrently with BIO 651, and graduate students are the primary audience. Students who have earned less than a B in BIO 550 struggle with the content and pace of BIO 551. Furthermore, this is an interactive and writing-intensive class that meets in a computer lab, necessitating that enrollment be capped at a relatively low number. The change in prerequisite will help to insure that the small number of seats reserved for undergraduates will be available to the most qualified students.

How Did You Determine the Need For This Change or Deletion? Years of experience teaching this class.

Check if this is a non-substantive change. Distribution for non-substantive changes of 100- through 500-level courses: two originally-signed copies to Faculty Senate; 600- through 900-level courses: three originally-signed copies to Graduate Council. Graduate Council will give two copies to Faculty Senate after approval.

Substantive Change: Department routes according to ART VI, SEC 3B(1-4) of Bylaws of the Faculty. Forward three originally signed forms to one of the following (please check all that apply and send to first council/committee marked). If proposal needs to go through more than one council/committee, forward one additional form for each additional council/committee marked. See Senate Action 11-93/94 for definitions of substantive/non-substantive changes.

- College Council (All substantive course changes numbered 100-599 must go through College Council first.)
- Professional Education Committee (Considers all substantive course changes for Professional Education courses and Teaching Methods courses.)
- Committee on General Education and Intercollegiate Programs (Considers all substantive course changes for General Education and Intercollegiate Program proposals.)
- Graduate Council (Considers all 600-900 level course changes.)

Signature Amathis
Department Head

Date 9-23-14

(Routing on Reverse Side)