Washington State University

MAJOR CURRICULAR CHANGE FORM - NEW/RESTORE COURSE

☐ Please attach rationale for your request, a complete syllabus, and explain how this impacts other units in Pullman and other campuses (if applicable).
☐ Obtain all required signatures with dates.
☐ Provide original stapled packet of signed form/rationale statement/syllabus PLUS 10 stapled copies of complete packet to the Registrar's Office, campus mail code 1055.
☐ Submit one electronic copy of complete packet to wsu.curriculum@wsu.edu.

Requested Future Effective Date: Fall 2016 (term/year) Course Typically Offered: every semester

DEADLINES: For fall term effective date: October 1st; for spring or summer term effective date: February 1st. See instructions.
NOTE: Items received after deadlines may be put to the back of the line or forwarded to the following year. Please submit on time.

☐ New Course  ☐ Temporary Course  ☐ Restore Course

Math  ☐ 591  Seminar in Mathematical Biology

course subject/crosslist  591 course no. title
1 ( 1 0 ) Graduate standing or permission of the instructor
Credit hrs lecture hrs | lab or studio hrs per week prerequisite
1 |

Description for catalog: Current research in mathematical biology.

☐ Additional Attributes: Check all that apply.
☐ Crosslisting (between WSU departments)*
☐ Conjoint listing (400/500);
☐ Variable credit: ____________________________
☐ Repeat credit (cum. max. hrs): 10

☐ Special Grading:  ☐ S, F; ☐ A, S, F (PEACT only); ☐ S, M, F (VET MED only); ☐ H, S, F (PHARMACY, PHARDSCI only)
☐ Cooperative with UI
☐ Other (please list request): ____________________________

The following items require prior submission to other committees/depts. (SEE INSTRUCTIONS.)
☐ Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval.)
☐ Request to meet UCORE in _____________________ (Must have UCORE Committee Approval) > See instructions.)
☐ Special Course Fee _____________________ (Must submit request to University Receivables.)

Contact: Sandy Cooper Phone number: 335-8652 Campus mail code: 3113
Email: scooper@math.wsu.edu Instructor, if different: Xueying Snow

Chair/date  Dean/date  All-University Writing Com / date

Chair (if crosslisted/interdisciplinary)*  Dean (if crosslisted/interdisciplinary)*  UCORE Committee Approval Date

Catalog Subcommittee Approval Date  GSC or AAC Approval Date  Faculty Senate Approval Date

*If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.
Math 591 Seminar in Mathematical Biology  
Jackson Hall (MURW) Room 53  
TU 4:10-5:00 pm  
Fall 2015

Instructors: Robert Dillon and Xueying Wang  
Office: Neill 417  
Office hours: Tuesdays 9-10:30am or by appointment  
Phone: 509-335-6996  
Email: xueying@math.wsu.edu  
Webpage: http://www.math.wsu.edu/faculty/xueying/

Course

Course Description: Math 591 is a seminar course in mathematical biology. This class is intended to create a forum for faculty and students who are interested in this field. The main goals are to (1) acquaint students to potential research projects and (2) allow them to practice and receive feedback on their presentation skills.

Student Learning Outcome: Upon completion of this course, students will be able to discuss current research at the interface of mathematics and biology (assessed participation in seminar discussions).

Required text: None.

Prerequisite: Graduate standing or permission of the instructor.

Credit: 1 credit, may be repeated for credit; cumulative maximum is 10 credits

Important course information and updates/modifications to the course schedule are kept current on the web:

http://www.math.wsu.edu/faculty/xueying/MathBiologySeminar.html

Grading Criteria The course grades (S or F) will be assessed through participation (measured by your presence in class and engagement in discussions). The grade of S is earned for participating on a regular basis. Missing more than 3 classes over the course of the semester will normally result in a grade of F.

In preparation for class each week, students should expect at least 2 hours work time outside of class. This work will involve finding and reading the research papers to be discussed that week. When you are the facilitator, plan to spend approximately 6 hours preparing as you will need to locate an article, get it approved, then read it and prepare questions for discussion.

Attendance Policy Students who register for credit in this course are expected to attend every seminar and be prepared to participate in the discussions.

Students with Disabilities

Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an
Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist (Pullman Campus contact info: AccessCenter@wsu.edu, http://accesscenter.wsu.edu).

Campus Safety

Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (http://safetyplan.wsu.edu/) and visit the Office of Emergency Management web site (http://oem.wsu.edu/) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

Academic integrity

As an institution of higher education, WSU is committed to principles of truth and academic honesty. All members of the University community share the responsibility for maintaining and supporting these principles. To maintain the academic integrity of the community, the University cannot tolerate acts of academic dishonesty including any forms of cheating, plagiarism, or fabrication.

Weekly Schedule of Fall 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker and Title</th>
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<tbody>
<tr>
<td>August 25</td>
<td>Organizational Meeting</td>
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<tr>
<td>September 1</td>
<td>Xueying Wang <em>Mathematical Modeling of Cholera Epidemics</em></td>
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<tr>
<td>September 8</td>
<td>Mohammed Kaabar (PhD Student in Mathematics) <em>Finding the Best Classification Rates for Arabic Sign Language Data using Data Analysis Methods</em></td>
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<tr>
<td>September 15</td>
<td>Andrew Oster (Department of Mathematics, Eastern Washington University) <em>Laminar Development of the Primary Visual Cortex</em></td>
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<tr>
<td>September 22</td>
<td>Steve Krone (Department of Mathematics, University of Idaho) <em>Directed evolution of phage lysins: using mathematical models to explore feasibility/design of new antibacterial drugs</em></td>
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<tr>
<td>September 29</td>
<td>Richard Gomulkiewicz (School of Biology) <em>An empirically based mathematical model for the potential role of masting by introduced bamboos in North American deer mouse population irruptions</em></td>
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<td>October 6</td>
<td>Mark Schumaker, <em>Improved Models of Equine Infectious Anemia</em></td>
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<td>October 13</td>
<td>Robert Dillon, <em>Mathematical modeling of sperm and cilia motility</em></td>
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<td>October 20</td>
<td>Haijun Li, <em>Stochastic Ordering of Epidemics</em></td>
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<td>October 27</td>
<td>David Wollkind, <em>The Behavior of a Population Interaction-Diffusion Equation in its Subcritical Regime</em></td>
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<td>November 3</td>
<td>Kazuo Yamazaki, <em>Introduction to differential equations perturbed by random noise</em></td>
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<td>November 10</td>
<td>Audrey Fu (Department of Statistical Sciences, University of Idaho) <em>Inferring the cell differentiation trajectory from single-cell gene expression data</em></td>
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<td>November 17</td>
<td>Yuan Wang, <em>Statistical Analysis of Complex Data Objects</em></td>
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<td>November 24</td>
<td>No Seminar (Thanksgiving Vacation)</td>
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<td>December 1</td>
<td>Elissa Schwartz, <em>Using compartmental and agent-based modeling to understand the 2009 H1N1 influenza outbreak in Pullman, WA</em></td>
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<tr>
<td>December 8</td>
<td>Svetlana Lockwood (PhD student, EECS), <em>Application of Topology to Data Analysis</em></td>
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*September 22, 2015 (Tuesday) is the last day to drop the course without record.