WINONA STATE UNIVERSITY
NOTIFICATIONS

Department ____ Mathematics & Statistics ________ Date ______ January 20, 2014 ______

If the proposed curricular change involves existing courses and is considered a Notification, complete and submit this form. Refer to Regulation 3-4, Policy for Changing the Curriculum, for complete information on submitting proposals for curricular changes.

Please check type of change(s):
  _ _ Reduction in course number  Change in grading option  _ _ Change in hours or credits in an independent study course
  Change in course title  X Change in course description*  _ _ Change in existing major, minor, option, concentration, etc.*
  X Change in prerequisites  _ _ Change in course number within level, e.g. 310 to 350  _ _ Change in delivery method

A. Current Course Information

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 405</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
</tbody>
</table>

This proposal is for a(n)  X  Undergraduate Course  _____ Graduate Course

Applies to  X  Major  _ _ Required  _ _ Not Required
       5  Minor  _ _ Required  _ _ Not Required

  X  Elective  _ _ Elective

Prerequisites  An introductory statistics course (preferably STAT 210 or STAT 305)

Grading  X  Grade only  _ _ P/NC only  _ _ Grade and P/NC Option

Frequency of offering  Offered alternate fall semesters

Proposed Course Information. (Please indicate only proposed changes below.)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 310</td>
<td>Biostatistics</td>
<td></td>
</tr>
</tbody>
</table>

Prerequisites

Grading  _ _ Grade only  _ _ P/NC only  _ _ Grade and P/NC Option

Frequency of offering  Alternate Years

Effective date (normally the next semester)  _ _ Fall 2014

B. *If the proposal requests a change in the course description, please attach a description of the change requested and list both the current and proposed course description. If the proposal requests a change in an existing major, minor, option, concentration, etc., please attach a description of the change(s) requested and list both the current and proposed program listings.

<table>
<thead>
<tr>
<th>Current Course Description</th>
<th>New Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>405 - Biostatistics (3 S.H.)</td>
<td>This course will give students an overview of Biostatistics. The topics to be covered include contingency tables analysis, relative risk, odds ratios, partial association, Cochran-Mantel-Haenszel methods, two-way ANOVA, interactions, repeated measures, logistic regression, Poisson regression, Kaplan-Meier methods, and Cox proportional hazards models. Parametric methods and various nonparametric alternatives will be discussed. Prerequisites: An introductory statistics course (preferably STAT 210 or STAT 305). Offered alternate fall semesters.</td>
</tr>
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<td>405 - Biostatistics (3 S.H.)</td>
<td>This course will give students an overview of Biostatistics. The topics to be covered include contingency tables analysis, relative risk, odds ratios, partial association, Cochran-Mantel-Haenszel methods, two-way ANOVA, interactions, repeated measures, logistic regression, Poisson regression, Kaplan-Meier methods, and Cox proportional hazards models. Parametric methods and various nonparametric alternatives will be discussed. Prerequisites: STAT 310. Offered Alternate Years.</td>
</tr>
</tbody>
</table>
Approved by the Department

Department Chair: ____________________________ Date: ____________

_e-deppa@winona.edu__________________________________________
e-mail address

Notification to the College Dean

Yes __ No

Dean of College: ____________________________ Date: ____________

Presented at A2C2 meeting on

Date: ____________ Chair of A2C2: ____________________________

Presented at Graduate Council meeting on (if applicable)

Date: ____________ Chair of Graduate Council: ____________________________

Submitted to Registrar on

Date: ____________ Registrar: Please notify department chair via e-mail that Notification has been recorded.

*If a dean has comments on a notification, the dean shall forward the comments to the department. [Revised 7-13-11]
Winona State University - Department of Mathematics & Statistics
Minutes of the Department Meeting on 1/17/13

Present: John Czaplewski, Brant Deppa (chair), Jeff Draskoci-Johnson, Eric Erthum, Sue Florin, Tisha Hooks, April Kerby, Chris Malone, Mike Markegard, Felino Pascual, Barry Peratt, Chris Phan, Dan Rand, Sam Schmidt, Ken Suman, Samuel Tsegai, Nicole L. Williams, Lee Windsperger

New Business
1) Minutes from 12/06/12
   The minutes were approved by unanimous consent.
2) Motion from Mathematics Group: The MATH subgroup moves that the department approve the attached course outline for MATH112. The name change has already been approved.
   A2C2 paperwork is attached.
   After some clarifying discussion, the motion was approved with the last sentence rewritten as it appears above.
3) Motion from Statistics Group: All statistics majors will be required to take STAT 310 as a second course.
   This motion was approved without objection.
4) Adjourn
   We adjourned about 1:25

Respectfully submitted,
Jeff Draskoci-Johnson

Winona State University - Department of Mathematics & Statistics
Minutes of the Department Meeting on 1/24/14

Present: Joyati Debnath, Brant Deppa (chair), Jeff Draskoci-Johnson, Eric Erthum, Tisha Hooks, April Kerby, Steve Leonhardi, Chris Malone, Mike Markegard, Barry Peratt, Sam Schmidt, Samuel Tsegai, Aaron Wangberg, Nicole Williams, Lee Windsperger

New Business: Note: All of the items below were considered after the department waived the 40-hour rule without objection.

Motions from the Statistics Subgroup
1. STAT 100 – new course proposal and GEP proposal
   The new STAT 100 course proposal and GEP proposal were approved without objection.
2. New program: B.S. Data Science (DSCI) major, minor, and courses
   (i) The department approved two versions of the major, both without objection. The Math department indicated a preference for Version 2, but voted to accept Version 1 if Computer Science preferred that one. Chris was directed to submit whichever one Computer Science preferred. (Their discussion was still pending as of our meeting.)
   (ii) The minor was approved without objection, also with the understanding that Computer Science might want to edit certain courses in the elective list.
   (iii) All new courses associated with the proposed data science major were approved without objection. These include DSCI 210, DSCI 310, DSCI 395, DSCI 488, DSCI 492, and DSCI 495.
   (iv) The notifications for the conversion of STAT 325 to DSCI 325 and STAT 425 to DSCI 425 were approved without objection.
3. Program revisions: B.S. Statistics (STAT) major, minor, and courses
   (i) All revisions, both to the major and to the minor were approved without objection.
   (ii) STAT 395 and STAT 495, i.e. the analogous courses to DSCI 395 and DSCI 495, were approved without objections.

Supporting documentation for items 1 – 3 above were sent to the department by Tisha Hooks (STAT 100) and Chris Malone (DSCI and STAT programs) via e-mail (01/22/14).

4. Notifications re: STAT
   The following notifications seek Departmental approval. 1) In Spring, 2013, the department voted to make STAT 310 the prerequisite for a number of upper-division STAT courses. Either this paperwork was not submitted, or got lost. 2) The note in the course description for STAT 305 was corrected to read STAT 305 instead of Math 305. 3) A notification to edit course description slightly and to allow ECON 222 to serve as a possible prerequisite for STAT 310. 4) Include DSCI 210 as a prerequisite for STAT 370.
   The department approved the submission/resubmission of all of these notifications.
5. Notifications re: MATH courses
   The following notifications were submitted for departmental approval. (i) A change in course title for MATH 112 from "Modeling with Functions" to "Applied Precalculus" (ii) A change in the catalog description of MATH 112. (See the catalog language at the end of these minutes.) (iii) A change in number for MATH 140 to MATH 132 AND a change in prerequisites from "MATH 112 - Modeling with Functions, MATH 115 - College Algebra, or MATH 120 - Precalculus" to "MATH 112 - Applied Precalculus, MATH 115 - College Algebra, or MATH 120 - Precalculus" (iv) A change in the catalog description of MATH 132. (See the catalog language at the end of these minutes.)
   The department approved all of these changes without objection.

6. Proposal re: MATH 117 from Steve, Barry, and Jeff
   The department approved without objection the proposal to submit MATH 117 as a new course and also the proposal to submit it as a GEP course under Goal 4.
   Since the Math Subgroup had not had a chance to vote on the committee's work, the department waived normal procedures without objection. (The documents were handed out in the meeting.)
   Secretary's note: If there is any confusion at to what, exactly, the department agreed to in Items 1-6 above, I can supply copies of the A2C2 paperwork upon request. Summaries of the proposals re: data science and statistics are attached below.

7. Adjourn
   We adjourned about 12:50 p.m.

Respectfully submitted,
Jeff Draskoci-Johnson