**Proposal Form For Addition And Revision Of Courses**

1. **Proposing College / School:** College of Business  
   **Department:** Aviation & Supply Chain Management

2. **Course Prefix and Number:** BUAL 5610/6610/6616  
   **Effective Term:** Spring 2014

3. **Course Title:** Predictive Modeling II  
   **Abbreviated Title (30 characters or less):** Predictive Modeling II

4. **Requested Action:**  
   - [ ] Renumber a Course  
   - [ ] Add a Course  
   - [ ] Revise a Course

5. **Course Credit:**  
   - [ ] Contact/Group Hours:  
   - [ ] Scheduled Type: Lecture  
   - [ ] Weekly or Per Term: Weekly  
   - [ ] Credit Hours: 3  
   - [ ] Anticipated Enrollment: 15

6. **Maximum Hours (Repeatability):** 3  
   **Total Credit Hours:** 3

7. **Grading Type:**  
   - [ ] Regular (ABCDF)  
   - [ ] Satisfactory/Unsatisfactory (S/U)  
   - [ ] Audit

8. **Prerequisites/Corequisites:**  
   Use “P:” to indicate a prerequisite, “C:” to indicate a corequisite, and “P/C:” to indicate a prerequisite with concurrency.
   - MNGT 2600, MNGT 3600, BUAL 5610/6610/6606 or equivalent

9. **Restrictions:** List specific restriction in space above.
   - [ ] College  
   - [ ] Major  
   - [ ] Standing  
   - [ ] Degree

10. **Course Description:** Basic data mining techniques including neural networks, decision trees, clustering algorithms, linear programs, text and web mining in business setting.

11. **May Count Either:**  
   - [ ] or  
   - [ ] Program Type:  
   - [ ] Program Title: BSSBA in Business Analytics  
   - [ ] Requirement or Elective?: Required  
   - [ ] Program Type: Minor  
   - [ ] Program Title: Minor in Business Analytics  
   - [ ] Requirement or Elective?: Required

12. **Affected Program(s):**  
   (Respond “N/A” if not included in any program; attach memorandum if more space is required)
   - Major: BSSBA in Business Analytics  
   - Required
   - Minor: Minor in Business Analytics  
   - Required

13. **Overlapping or Duplication of Other Units’ Offerings:**  
   (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
   - [ ] Applicable
   - [ ] Not Applicable
14. Justification:

Topical content fundamental for Business Analytics major/minor

(Include a concise, yet adequate rationale for the addition/revision of the course, citing accreditation, assessments (faculty, graduate, and/or external) where applicable)

15. Resources:

Dean will shift resources within College as necessary.

(Indicate whether existing resources such as library materials, classroom/laboratory space, and faculty appointments are adequate to support the proposed addition/revision; if additional resources are required, indicate how such needs will be met, referencing the appropriate level of authorization -- i.e.: Dean -- where necessary; if no additional resources or shifting of resources will be necessary, respond "Not Applicable")

16. Student Learning Outcomes:

- To understand and apply basic data mining techniques in a business environment.
- To understand and apply text and web mining in business applications.
- To understand ethical issues in business data mining.
- To interpret and link results to business decision making

(State in measurable terms (reflective of course level) what students should be able to do when they have completed this course)

17. Course Content Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial Description of Data Mining in Business</td>
<td>HW 1</td>
</tr>
<tr>
<td>2</td>
<td>Data Mining Processes and Knowledge Discovery in Business</td>
<td>HW 2</td>
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<tr>
<td>3</td>
<td>Database Support to Data Mining in Business</td>
<td>HW 3</td>
</tr>
<tr>
<td>4</td>
<td>Overview of Data Mining Techniques in Business</td>
<td>HW 4</td>
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<tr>
<td>5</td>
<td>Enterprise Miner Intro and Business</td>
<td>HW 5</td>
</tr>
<tr>
<td>6</td>
<td>Exam/Business Case Discussion</td>
<td>Exam/Case I Due</td>
</tr>
<tr>
<td>7</td>
<td>Cluster Analysis in Business</td>
<td>HW 6</td>
</tr>
<tr>
<td>8</td>
<td>IBM/SPSS Modeler Intro and Business Case</td>
<td>HW 7</td>
</tr>
<tr>
<td>9</td>
<td>Regression Algorithms for Data Mining in Business</td>
<td>Case II Due/HW 8</td>
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<tr>
<td>10</td>
<td>Neural Networks in Data Mining in Business</td>
<td>HW 9</td>
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<tr>
<td>11</td>
<td>Decision Tree Algorithms in Business</td>
<td>HW 10</td>
</tr>
<tr>
<td>12</td>
<td>Exam/Web and Text Mining in Business</td>
<td>Exam</td>
</tr>
<tr>
<td>13</td>
<td>More Web and Text Mining</td>
<td>HW 11</td>
</tr>
<tr>
<td>14</td>
<td>Overview of Linear Programming in Business</td>
<td>HW 12</td>
</tr>
<tr>
<td>15</td>
<td>Ethical Issues in Business Data Mining</td>
<td>HW 13</td>
</tr>
</tbody>
</table>

(Provide a comprehensive, week-by-week breakdown of course content, including assignment due dates)

18. Assignments / Projects:

Exams: Two in-class exams and one comprehensive final exam will be given during the semester. Exams will cover material in the assigned readings, homework, lecture and lecture slides. Please refer to the calendar for exam dates.

Make up exams: In the event that a student misses an exam and provides a University approved excuse in accordance with the following guidelines, the student will be given the opportunity to makeup the missed exam. Lack of preparation for an exam is not a valid excuse and students should not be tempted to "fake" a doctor's excuse due to lack of preparation. The penalty for this is severe and could affect you for the rest of your career.

This makeup exam will cover the same material that was covered on the missed exam. If a student fails to provide sufficient documentation of the absence or the absence is not a University approved excuse, the student will receive a zero for the missed exam. A ZERO ON A MISSED EXAM CANNOT BE REPLACED WITH THE FINAL EXAM. ALL
STUDENTS MUST TAKE ALL EXAMS.

Case Studies: Two case study assignments will be given during the course. The case studies will require the analysis of a realistic business problem using predictive modeling. The deliverable will be a written report targeted for management of a company detailing the results and recommendations from the analysis.

Homework: Small problem sets will be assigned following most every class. Completing these homework assignments is a requirement of the course.

(List all quizzes, projects, reports, activities and other components of the course grade -- including a brief description of each assignment that clarifies its contribution to the course's learning objectives)

19. Rubric and Grading Scale:

REQUIREMENTS AND GRADING

Exam 1 ................................................. 20%
Exam 2 ................................................. 20%
Case Study 1 ....................................... 10%
Case Study 2 ....................................... 10%
Final Exam ........................................... 20%
Weekly Homework Assignments .................. 20%

Grading Policy: A>90%, B>80%, C>70%, D>60%, F<=60%.

(List all components of the course grade -- including attendance and/or participation if relevant -- with point totals for each; indicate point totals and ranges or percentages for grading scale; for S/U grading, detail performance expectations for a passing grade)

20. Justification for Graduate Credit:

Justification for Graduate Credit:

There will be additional requirements for graduate students, which will lead to a different set of weights, compared to undergraduate students, for determination of course grade. A research paper will be required of graduate students (10%) and a take home component will be included in each of the two examinations. This added component will constitute at least 15% of examination grade. Hence the requirements for graduate students are as follows:

Exam 1 (with a take home component) ............... 20%
Exam 2 (with a take home component) ............... 20%
Case Study 1 ....................................... 10%
Case Study II ....................................... 10%
Research Paper ..................................... 10%
Weekly Homework Assignments .................. 10%
Final Exam ........................................... 20%

(Include a brief statement explaining how the course meets graduate educational standards (i.e.: rigorous standards for evaluation, development of critical thinking and analytical skills, etc.))

(Included below are standard statements regarding course policies. If necessary, a statement may be altered to reflect the academic policies of individual faculty members and/or the academic unit or department, provided that there is no conflict with the Tiger Cub, Faculty Handbook, or any existing university policy.)

POLICY STATEMENTS

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed major examination (e.g.: hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.
Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided for by the Americans With Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodation Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).