To: University Curriculum Council and College of Business Curriculum Committee

From: Patricia Robertson, Chair, Department of Economics and Finance

Date: February 5, 2017

Re: FIN 3723 – Financial Analytics and Modeling

Our Department desires to add FIN 3723 – Financial Analytics and Modeling - to our curriculum. The Finance faculty and I have asked numerous Finance alumni and other professionals what we should change about our curriculum. The persons who have responded to our curriculum questions include but are not limited to alumni and finance professionals at:

* Goldman Sachs
* Global Treasury at Wal-Mart
* Stephens, Inc.
* Crews & Associates
* Windstream Telecommunications
* Banks
* Federal, state and local government

Consistently, these alumni and professionals tell us that our top priority should be addition of a Financial Analytics and Modeling course to our Finance curriculum. Finance graduates in today’s world must be able to use technology to analyze large amounts of financial data. The successful student in our proposed FIN 3723 course would be able to use technological tools as well as financial analytics and forecasting knowledge to solve real world business problems.

Our students need this course so that they can compete in the job market and succeed in their careers. Students report that more and more interviewers are also asking questions about spreadsheet and analytical skills in interviews for internships and jobs. Our Department desires to provide FIN 3723 to emphasize the technology and critical thinking skills needed for careers in Finance.

For these reasons, we request that the UCC and College Curriculum Committee approve the addition of FIN 3723 to our curriculum.

Code # Enter text…

# New Course Proposal Form

[ x] **Undergraduate Curriculum Council**

[ ] **Graduate Council**

[x ] **New Course or** [ ]**Experimental Course (1-time offering) (Check one box)**

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

Email completed proposals to curriculum@astate.edu for inclusion in curriculum committee agenda.

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| **Department Curriculum Committee Chair**  | **COPE Chair (if applicable)**  |
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| **Department Chair:**  | **Head of Unit (If applicable)**   |
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| John Seydel\_\_\_\_\_ |

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| **College Curriculum Committee Chair**  | **Undergraduate Curriculum Council Chair**  |
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| **College Dean**  | **Graduate Curriculum Committee Chair**  |

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## General Education Committee Chair (If applicable) Vice Chancellor for Academic Affairs

1. Contact Person (Name, Email Address, Phone Number)

Bill Hu, xhu@astate.edu, 8709722470

1. Proposed Starting Term and Bulletin Year

Fall, 2017

1. Proposed Course Prefix and Number (Confirm that number chosen has not been used before. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. ) FIN3723
2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Financial ANALYTICS AND MODELING

Short Title: Financial Analytics Modeling

1. Brief course description (40 words or fewer) as it should appear in the bulletin.

Fundamental techniques and best practices for financial analysis and modeling.

1. Prerequisites and major restrictions. (Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites? Yes

* + - * 1. If yes, which ones?

FIN3713

* + - * 1. Why or why not?

 This course is built upon fundamental financial knowledge covered in FIN3713.

b. Is this course restricted to a specific major? nO

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| Enter text... |

 a. If yes, which major?

1. Course frequency(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.* Fall, Spring

1. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one. Lecture and lab

1. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

Standard letter

1. Is this course dual listed (undergraduate/graduate)?

No

1. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.) No

* 1. If yes, please list the prefix and course number of cross listed course.

 Enter text...

* 1. Are these courses offered for equivalent credit? Yes / No

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| Enter text... |

 Please explain.

1. Is this course in support of a new program? No

a. If yes, what program?

 Enter text...

1. Does this course replace a course being deleted? No

a. If yes, what course?

Enter text...

1. Will this course be equivalent to a deleted course? No

a. If yes, which course?

Enter text...

1. Has it been confirmed that this course number is available for use? Yes  *If no: Contact Registrar’s Office for assistance.*

1. Does this course affect another program? No

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.

Enter text...

## Course Details

17. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

Week 1: Basic spreadsheet financial modeling skills

Week 2: Intermediate spreadsheet financial modeling skills

Week 3: Specification of financial model outputs and inputs

Week 4: Data issues in financial modeling

Week 5: Financial model selection or development

Week 6: Financial model testing and validation

Week 7: Sensitivity and break-even analysis

Week 8: Scenario analysis

Week 9: Monte Carlo simulation

Week 10: Advanced spreadsheet financial modeling skills

 Week 11: Financial statements modeling

Week 12: Financial forecasting

Week 13: Cases in financial modeling

Week 14: Student presentations

1. Special features (e.g. labs, exhibits, site visitations, etc.)

Labs

1. Department staffing and classroom/lab resources

Dawson Capital Markets Lab

a. Will this require additional faculty, supplies, etc.?

 No

1. Does this course require course fees? No

 *If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

### Course Justification

21. Justification for course being included in program. Must include:

1. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

 The goal is to train students using technology and develop strong financial analytics, forecasting and modeling skills

1. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

 The College of Business’ mission statement is to provide a high-quality management education to students by emphasizing such skills as leadership, technology, decision making, and social responsibility. This course will provide students with the analytical and technological skills necessary to improve their decision-making capabilities

1. Student population served.

All business students, especially finance majors.

1. Rationale for the level of the course (lower, upper, or graduate).

As an upper level course, students will have needed to complete the introductory finance and accounting courses so as to be able to draw knowledge from all of these sources as well as general education received to develop financial analytics, forecasting and modeling skills for real world problems.

## Assessment

### University Outcomes

22. Please indicate the university-level student learning outcomes for which this new course will contribute. Check all that apply.

 a. [ ] Global Awareness b. [ ] Thinking Critically c. [ x] Information Literacy

### Relationship with Current Program-Level Assessment Process

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

The course aligns with key program level outcomes: 1. Apply basic financial tools to value financial products. 2. Use financial statements to appropriately evaluate firm performance and determine value of the firm.

The primary learning outcome is for students to be able to use technological tools as well as financial analytics and modeling knowledge to solve real world business problems.

1. Considering the indicated program-level learning outcome/s (from question #23), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

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| **Program-Level** **Outcome 1 (from question #23)**  | Apply basic financial tools to value financial products.  |
| Assessment Measure  | Direct measure: We will include on an examination in an upper-level course questions that require students to apply basic financial tools to value financial products. Indirect measure: Survey of Finance majors or MFAT (Major Field Assessment Test).  |
| Assessment Timetable  | Once every three years, beginning Spring 2016.  |
| Who is responsible for assessing and reporting on the results?  | Finance faculty and department chair are responsible for assessing, evaluating, analyzing results, developing actions plans, and closing the loop.   |
| **Program-Level** **Outcome 2 (from question #23)**  | Use financial statements to appropriately evaluate firm performance and determine value of the firm.  |
| Assessment Measure  | Direct measure: We will include on an examination in an upper-level course questions that require students to use financial statements to appropriately evaluate firm performance and determine value of the firm. Indirect measure: Survey of Finance majors or MFAT (Major Field Assessment Test).  |
| Assessment Timetable  | Once every three years beginning Spring 2017.  |
| Who is responsible for assessing and reporting on the results?  | Finance faculty and department chair are responsible for assessing, evaluating, analyzing results, developing actions plans, and closing the loop.   |

 *(Repeat if this new course will support additional program-level outcomes)*

###  Course-Level Outcomes

25. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

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| **Outcome 1**   | Understand the basic concepts of financial analytics and modeling tools and techniques.  |
| Which learning activities are responsible for this outcome?  | Use of problems, lectures, and case studies to determine the business problem and define the end product as well as the key inputs needed to complete the task.  |
| Assessment Measure  | Quizzes and lab assignments, presentation, mid-term and final exams. Specifically, the final presentation in FIN3723 Financial Analytics and Modeling will be evaluated using instructor grading scale. Finance majors will be selected for specific data collection as the course is open to other majors as well.  |

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| **Outcome 2**   | Demonstrate the ability to choose and build financial models that produce baseline and dynamic outputs in response to changes in real world scenarios.  |
| Which learning activities are responsible for this outcome?  | Use of problems, lectures, and case studies to determine and build the appropriate financial models for the business problem and produce baseline and dynamic outputs in response to changes in real world scenarios.  |
| Assessment Measure  | Quizzes and lab assignments, presentation, mid-term and final exams. Specifically, the final presentation in FIN3723 Financial Analytics and Modeling will be evaluated using instructor grading scale. Finance majors will be selected for specific data collection as the course is open to other majors as well.  |

*(Repeat if needed for additional outcomes)*

## Bulletin Changes

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| **Instructions**  |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Follow the following guidelines for indicating necessary changes.** **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.** * Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)
* New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font).
* Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)

*You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon*  *, and selecting the text you would like to apply the change to.* *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.*   |

## Page 437

FIN 3713. Business Finance Legal forms of American business organization, policies, methods, and institutions involved in financing business. The principles of financial management will be studied with emphasis on the corporation, including cash flows, securities, financial structures, expansion, and acquisitions. Prerequisite, ACCT 2133 or 2023. Fall, Spring, Summer.

***FIN 3723 Financial Analytics and Modeling Fundamental techniques and best practices for financial analysis and modeling. Prerequisite, FIN 3713. Fall, Spring.***

FIN 3733. Personal Finance Concerned with management of the personal financial resources of the individual and the family. Provides guidance for consumer purchasing and credit, personal insurance, taxation, investing, estate planning, and social security. Designed for non-business majors, course counts only as a free elective, except where required in major. Demand.