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| For Academic Affairs and Research Use Only | |
| Proposal Number |  |
| CIP Code: |  |
| Degree Code: |  |

**New or Modified Course Proposal Form**

**[X ] Undergraduate Curriculum Council**

**[ ] Graduate Council**

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| **[X ]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

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

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| Kelly Fish 9/17/2020 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| James Doering 9/17/2020 **Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (if applicable)** |
| Melodie Philhours 9/24/2020  **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Mary Elizabeth Spence 9/24/2020 **Office of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| Melody Lo 9/24/2020 **College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **General Education Committee Chair (if applicable)** |  |

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

**Jollean Sinclaire, Dept of CIT, jsinclaire@astate.edu, 870-972-3990**

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

**Fall 2021**

**2021-22 Bulletin**

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

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|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)**  *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **CIT** |
| **Number\*** |  | **3553** |
| **Title** |  | **Foundation of Business Analytics** |
| **Description\*\*** |  | **Contemporary processes, methods, techniques, tools and datasets that organizations use to implement knowledge discovery projects; focus on development of critical thinking through use of in-depth assignments that utilize project management fundamentals.** |

***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? Yes/No]**

(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).

1. **YES** Are there any prerequisites?
   1. If yes, which ones?

Enter text...**CIT 1503; ACCT 2033, ACCT 2133, STAT 3233**

* 1. Why or why not?

**Students need the foundation provided in computer basics, accounting and statistics to use the business analytics tools and methods through in-depth assignments that utilize data analysis tools, require data analysis and, interpretation**.

1. **NO** Is this course restricted to a specific major?
   1. If yes, which major? Enter text...
2. **Proposed course frequency [Modification requested? Yes/No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

**Fall, Spring, Summer**

1. **Proposed course type [Modification requested? Yes/No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

**Lecture and lab**

1. **Proposed grade type [Modification requested? Yes/No]**

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

**Standard letter**

1. **NO** Is this course dual-listed (undergraduate/graduate)?
2. **NO** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

Enter text...

**b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

Enter text...

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

a. If yes, what program?

Enter text...

1. **YES** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

**CIT 3523 Operations Management**

**Course Details**

1. **Proposed outline** **[Modification requested? Yes/No]**

(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 – Making good business decisions**

**Week 2 – Introduction to big data analytics, initiating analytics projects**

**Week 3 – Spreadsheet review, database concepts**

**Week 4 – Spreadsheet pivot tables, creating a database**

**Week 5 – Spreadsheet charts and dashboards**

**Week 6 – Data visualization concepts**

**Week 7 – Data visualization, creating a storyboard**

**Week 8 – Big data technologies, data mining part 1 (regression), regression with spreadsheet software**

**Week 9 – Data mining part 2 (classification), data mining part 3 (cluster analysis)**

**Week 10 – Data mining part 4 (cluster analysis with machine learning software), data mining part 5 (market basket analysis)**

**Week 11 – Data mining part 6 (sentiment analysis), instructions for homework company analysis report**

**Week 12 – Google analytics**

**Week 13 – Web analytics**

**Week 14 – Finish up homework and company analysis report**

**Week 15 – Review for final exam**

1. **Proposed special features** **[Modification requested? Yes/No]**

(e.g. labs, exhibits, site visitations, etc.)

**Labs**

1. **Department staffing and classroom/lab resources**

**Existing faculty plus additional faculty**

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

**Requires additional lab resources in NCGOB**

1. **NO** Does this course require course fees?

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

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

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

**In this course, students will develop critical thinking skills and learn how to use data to improve decision making. Today’s business students need an understanding of the strategic value of using data for decision making and knowledge of data analysis technologies and tools to support data-based decisions for better business outcomes.**

**Learning Outcomes**

**• Students will use critical thinking and other higher-order thinking skills to identify areas of inquiry that have the highest potential to derive new knowledge and actionable insights for a business organization.**

**• Students will explain the role of big data analytics in the inquiry process.**

**• Students will provide a basic explanation of specific big data analytics techniques such as trend analysis, association analysis, and prediction.**

**• Students will conduct specific types of data analyses using computer-based tools such as spreadsheet, database, data visualization, and data mining applications that provide tools for data pre-processing, classification, regression, clustering, association rules, and creating visualizations based on data.**

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

**AACSB accreditation requires that business graduates are equipped with critical-thinking skills. The focus of this course is on applications and appropriate software with a view toward how a business manager can effectively apply quantitative models to improve the decision-making process.**

c. Student population served.

**Students enrolled in all BS degrees in NCGOC**

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

**This course builds on its pre-requisites and introduces students to the tools and methods used in business analytics.**

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. **NO** Do the proposed modifications result in a change to the assessment plan?

*If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process**

**(Course modifications skip this section unless the answer to #18 is “Yes”)**

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?

**This course will replace CIT 3523 in the assessment plan. It introduces tools and methods used in business analytics and contributes to three NGCOB program level outcomes.**

**Students will demonstrate business knowledge.**

**Students will use critical thinking skills to make decisions.**

**Students will use technology appropriately to communicate, calculate, and present concepts and data.**

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

**These outcomes are ultimately assessed in MGMT 4813 Strategic Management or another core course.**

**Course-Level Outcomes**

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

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| **Outcome 1** | Students will use critical thinking and other higher-order thinking skills to identify areas of inquiry that have the highest potential to derive new knowledge and actionable insights for a business organization. |
| Which learning activities are responsible for this outcome? | Students will be required to complete exercises where they are supplied with a dataset and a business problem and are required to determine potential information solutions to meet business needs. |
| Assessment Measure | Hands-on application activities and homework project assignments |

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| **Outcome 2** | Students will explain the role of big data analytics in the inquiry process. |
| Which learning activities are responsible for this outcome? | Students will be required to complete assignments where they use a “data-to-decisions” framework to identify business problems, develop an analysis plan, and identify potential sources of big data that can be used to discover insights and make recommendations to management. |
| Assessment Measure | Concept quizzes and final exam |

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| **Outcome 3** | Students will provide a basic explanation of specific big data analytics techniques such as trend analysis, association analysis, and prediction. |
| Which learning activities are responsible for this outcome? | Students will be required to complete exercises in data visualization, data mining, and regression. |
| Assessment Measure | Hands-on application activities, homework project assignments, final exam |

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| **Outcome 4** | Students will conduct specific types of data analyses using computer-based tools such as spreadsheet, database, data visualization, and data mining applications that provide tools for data pre-processing, classification, regression, clustering, association rules, and creating visualizations based on data. |
| Which learning activities are responsible for this outcome? | Students will be required to complete numerous assignments in which they will create spreadsheet charts, pivot tables, dashboards, and visualization storyboards, and conduct various types of data analytics. |
| Assessment Measure | Company analysis report project |

**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. Please include a before (with changed areas highlighted) and after of all affected sections.**  **\*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.** |

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**CIT 3533. Microcomputer Applications II** Continuation of CIT 1503 to cover advanced topics in the area of spreadsheets and databases. Prerequisite, CIT 1503 or CS 1013, and CIT 2033. Fall.

**CIT 3553. Foundation of Business Analytics** Contemporary processes, methods, techniques, tools and datasets that organizations use to implement knowledge discovery projects; focus on development of critical thinking through use of in-depth assignments that utilize project management fundamentals. Prerequisites, **CIT 1503, ACCT 2033, ACCT 2133, and STAT 3233.** Fall, Spring, Summer.

**CIT 3603. Systems Analysis and Design** Covers the basic techniques used in the analysis, design, and implementation of computer based information systems. Provides overview of the systems development life cycle, systems documentation and program specifications, data gathering and information reporting activities, transition from analysis to design. Pre/Co-requisite, CIT 3013. Corequisite, CIT 3403. Fall.