

15-120

UWUCC App 4/15/16
Senate App 4/26/16
Senate App 9/13/16

IFMG110 Business Spreadsheet Computing - NewCrs-2015-11-18

Form Information

The page you originally access is the global template version. To access the template document that progresses through the workflow, please complete the following steps:

First Step: ONLY change the text in the [brackets] so it looks like this: **CRIM 101 Intro to Criminology-NewCrs-2015-08-10**

Second Step: Click "SAVE" on bottom right

- **DO NOT TYPE ANYTHING INTO THE FIRST PAGE OTHER THAN THE TEXT IN BRACKETS**

Third Step: Make sure the word **DRAFT** is in yellow at the top of the proposal

Fourth Step: Click on "**EDIT CONTENTS**" (not EDIT) and start completing the template. When exiting or when done, click "SAVE" on bottom right

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**Indicates a required field*

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Proposing Department/Unit*	ISDS	Contact Phone*	724-357-5747

(A) Course Prefix*	See the Registrar's List of Unavailable Course Numbers at http://www.iup.edu/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=129323 IFMG
(B) Course Number*	If Dual Listed, enter both course numbers 110
(C) Course Title*	Business Spreadsheet Computing
(D) Course Level*	undergraduate-level
(E) Cross Listed*	Dual Listed = Courses listed at two levels, such as undergraduate and graduate, masters and doctoral, etc. Cross Listed = Course has more than one prefix such as GEOG/RGPL 233 NO If YES, with:
(F) Variable Credit*	NO If YES, enter the number of credits:
(G) Variable Title*	NO If YES, enter the title(s):

(H) Number of Credits*	Class Hours:3 Lab Hours: Credits:3
(I) Prerequisite(s)	None
(J) Co-requisite(s)	<i>This means that another course must be taken in the same semester as the proposed course</i>
(K) Additional Information	<p>Check all that apply. Note: Additional documentation will be required</p> <p>* Teacher Education: Please complete the Teacher Education section of this form (below)</p> <p>* Liberal Studies: Please complete the Liberal Studies section of this form (below)</p> <p>* Distance Education: Please complete the Distance Education section of this form (below)</p> <p>liberal-studies</p>
(L) Recommended Class Size	YES Number (Enter Zero if No):40 If YES: (Check one of the following reasons and provide a narrative explanation) Pedagogical Explain (required): This course requires the use of computers and which will include a lot of interaction between the instructor and the students through the application of relative concepts
(M) Catalog Description*	<p>Guidelines: Do not include pre/co-requisite information here. The registrar prefers a concise description of course content, beginning with an active verb.</p> <p>Introduces the students to the fundamentals of the use of spreadsheet technology in the business environment. Familiarizes the students to the different formats and setups for business data. Illustrates various uses of spreadsheet formulas and functions in the business environment. Explains the application of charts and graphs for data analysis and also for collecting and sharing data. Demonstrates the use of spreadsheet tools in the analysis of research data.</p>

**(N) Student
Learning
Outcomes***

These should be measurable, appropriate to the course level, and phrased in terms of student achievement, not instructional or content outcomes

If dual listed, indicate additional learning objectives for the higher level course.

- Explain the use of spreadsheets professionally in different personal, organizational and cultural settings
- Illustrate the spreadsheet data entry process with various formats and setups
- Understand formulas and built-in and functions, and their use in business applications
- Describe the use of charts and graphs in the presentation of data
- Collaborate with other professionals on the Web through sharing of data
- Apply electronic decision support systems in managerial decision making processes
- Demonstrate the use of spreadsheet data analysis in different organizations, cultural and social settings

(O) Brief Course Outline*

Give an outline of sufficient detail to communicate the course content to faculty across campus. It is not necessary to include specific readings, calendar, or assignments

As outlined by the federal definition of a "credit hour", the following should be a consideration regarding student work - For every one hour of classroom or

direct faculty instruction, there should be a minimum of two hours of out of class student work.

Introduction to spreadsheet essentials

Through course readings and assignments students will identify, understand, practice and use the business spreadsheet computing environment

Entering and Formatting Datas

Students will understand different types of data used for different purposes. Course require students to select and organize relevant data to be formatted in different data types as well as perform different kind of data manipulation.

Formulas and Functions

Students will understand how to perform calculations by using formulas and built-in (available) functions in the system as well. Uses of other financial, statistical, logical as well as the use macros for automatic computations will be explained here.

Working with Charts and graphs

Students learn how to take various numerical data and exhibit them visually using electronic charts, graphs, plots and other forms of electronic diagrams. Students will take data from various data entry sources; they tabulate them and arrange them in different formats. Then, the students with the help of electronic tools will be able to plot the data visually to give it decisive meaning.

Sharing data and collaborating with others

Spreadsheets enhance the capability of working with other professionals. This course gives the students the the ability to do so by sharing documents, tracking changes, incorporating or rejecting revisions, adding comments, maintaining shared workbooks, keeping history, managing conflicts, and merging workbooks.

Electronic decision support systems

Students learn how to write algorithm for decision making process in electronic worksheet based on business conditions. This may be represented through the use IF statements in electronic worksheet that illustrates outcome based on smaller number of cases. It could also determine decision based on larger number of input criteria.

Spreadsheet research data analysis

In conjunction with graphical representation, this course teaches about data analysis functions to provide better understanding, evaluation and decision-making based on data. The data analysis includes calculating descriptive statistics, correlation, regression, trend, goal seeking, conditional formatting, pivot table, pivot charts, linear and nonlinear optimization.

Rationale for Proposal

(P) Why is this Course Being Proposed?*

The course introduces the students to the essentials of spreadsheet use in the business environment,. This course is needed to provide the students with the essential skills to learn business spreadsheet. It fills a gap by focusing exclusively only on the use of spreadsheet in the business environment. No other courses provided this exclusive coverage of needed courses content.

(Q) University Senate Summary of Rationale

Please enter a single paragraph summary/rationale of changes or proposal for University Senate.

The course focuses on teaching the essentials on the use of spreadsheet in the business environment. We do not have similar course at IUP, there is a need for a course that focuses on the use of spreadsheet computing in business

(R) How Does It Fit into the Departmental Curriculum?*

Check all that apply

Liberal Studies

If Other, please explain:

(S) Is a Similar Class Offered in Other Departments?*

NO

Please Provide Comment:

No similar class is offered at IUP

(T) Does it Serve the College/University Above and

NO

Please Provide Comment:

Beyond the Role it Serves in the Department?*

Fills a gap in our courses by focusing on teaching the use of business spreadsheet computing. Students from other majors can benefit from using this course. They can apply what they learn about Spreadsheet Computing in their majors as well

(U) Who is the Target Audience for the Course?*

Liberal Studies

If Other, please explain:

(V) Implications for Other Departments*

A. What are the implications for other departments?

(For Example: overlap of content with other disciplines, requirements for other programs)

No implications for other departments

B. How have you addressed this with other department(s) involved? What was the outcome of that attempt?

(W) Attach Supporting Documents for Implications,

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if Necessary

(X) Are the Resources Adequate?*

(i.e. faculty, space, equipment, laboratory supplies, library materials, travel funds, etc.)

YES

Please Provide Comment:

Yes we have faculty that taught similar courses in the past and are willing to teach it again

Distance Education Section

- Complete this section only if adding Distance Education to a New or Existing Course

<p>If Completing this Section, Check the Box to the Right:</p>	
<p>Course Prefix/Number</p>	
<p>Course Title</p>	
<p>Type of Proposal</p>	<p>See CBA, Art. 42.D.1 for Definition</p>
<p>Brief Course Outline</p>	<p>Give an outline of sufficient detail to communicate the course content to faculty across campus. It is not necessary to include specific readings, calendar or assignments</p> <p>As outlined by the federal definition of a "credit hour", the following should be a consideration regarding student work - For every one hour of classroom or</p> <p>direct faculty instruction, there should be a minimum of two hours of out of class student work.</p>
<p>Rationale for Proposal (Required Questions from CBA)</p>	
<p>How is/are the instructor(s) qualified in the Distance Education delivery method as well as the discipline?</p>	
<p>For each outcome in the course, describe how the outcome will be achieved using Distance Education technologies.</p>	
<p>How will the instructor-student and student-student interaction take place? (If applicable)</p>	
<p>How will student achievement be evaluated?</p>	

How will academic honesty for tests and assignments be addressed?

Liberal Studies Section

- Complete this section only for a new Liberal Studies course or Liberal Studies course revision

If Completing this Section, Check the Box to the Right:

Liberal Studies Course Designations (Check all that apply)

Learning Skills:

Knowledge Area:

Liberal Studies Elective

Please mark the designation(s) that apply - must meet at least one
information
literacy

Expected Undergraduate Student

Learning Outcomes

(EUSLOs)

Describe how each Student Learning Outcome in the course enables students to become Informed Learners, Empowered Learners and/or Responsible Learners

See <http://www.iup.edu/WorkArea/DownloadAsset.aspx?id=181694>

Learning Outcome #1: Explain the use of spreadsheets professionally in different personal, organizational and cultural settings

Expected Undergraduate Student Learning Outcome #1, 2, 3 Informed, empowered and responsible learners. By learning the essentials of use of spreadsheet professionally, all three categories of learners will be served here. This include the learning about the use of spreadsheet in different cultural and organizational settings.

Learning Outcome #2: Illustrate the spreadsheet data entry process with various formats and setups

Expected Undergraduate Student Learning Outcome #1, 2 Informed and empowered learners. Course content includes data entry process taken into considerations the different data formats and their applicability to different settings. Examples will be explained to show the different formats and the settings applicable.

Learning Outcome #3: Understand formulas and built-in and functions, and their use in business applications

Expected Undergraduate Student Learning Outcome #2, 3 empowered learners and responsible learners

The course introduces the use of formulas and various different functions categories to inform the students about their use correct use for personal and professional use.

Learning Outcome #4: Explain the use of charts and graph in the presentation of data

Expected Undergraduate Student Learning Outcome #1, 2, 3 Informed, empowered and responsible learners

Yes the use of charts and graphs to present and explain data will be covered in this course. Within this, data will be tabulated first and then illustration of charts and graphs will be presented to depict the tabulated data.

Learning Outcome #5: Collaborate with other professionals on the Web through sharing of data

Expected Undergraduate Student Learning Outcome #1, 3 Informed and responsible learners

The collection, and sharing of data with professionals is covered in this course. Topics include finding sources of relevant data to fields of study, understanding the meaning of the data, find useful ways to present the data and also share data with other professionals in relevant fields of study.

Learning Outcome #6: Apply electronic decision support systems in managerial decision making processes

Expected Undergraduate Student Learning Outcome #1, 2, 3 Informed, empowered and responsible learners

Building an electronic decision support system with the use of spreadsheet software is covered in this course. Topics include building different scenario managers, examine different goal settings, predict outcomes based on the dual scenario/goal settings and then present the information in forms applicable to managerial decision making settings.

Learning Outcome #7: Demonstrate the use of spreadsheet data analysis in different organizations, cultural and social settings

Expected Undergraduate Student Learning Outcome #2, 3 empowered and responsible learners

The analysis of data and their inclusion of data is one of the most widely practiced skills in different fields. This course introduces the students to various methods of analyzing the data, presenting the analysis in different formats and for the inclusion of analysis in research findings.

**Description of
the Required**

**Content for
this Category**

Narrative on how the course will address the Selected Category Content

1. Introduction to spreadsheet essentials

Through course readings and assignments students identify, understand, practice and use the business spreadsheet computing environment. The course selects organizational and cultural settings and the criteria for selecting correct spreadsheet application settings. Assignments include selective reading to specify social and cultural settings for the appropriate use of spreadsheet computing solutions.

2. Entering and Formatting Data

Entering and formatting different types of data and its appearances that will include: hiding/locking worksheets, sorting, filtering Excel tables, importing and exporting data. Interface with other applications will be covered as well.

3. Formulas and Functions

Formulas and functions are very important to speed-up and automate calculations. Understanding and exploring formulas and functions will include: cell references (absolute and relative), formula syntax, arithmetic operators, functions (built-in, statistical, and financial), tracing dependents, and macros (recording, running, and editing). This includes also performing data sort, executing other functions for data sort value lookup and conditional sum of values.

4. Working with Charts and graphs

Graphical representation of data help users intuitively understand and come to preliminary resolutions faster and easier. The graphical exploration includes creating basic charts, selecting chart layout, adding data, adding trend-line, and other features. Graphical objects include the selection of line, bar, pie and other charts based on the selection of accounting, financial or other data.

5. Sharing data and collaborating with others

Spreadsheets enhance the capability of working with other professionals. These capabilities include tracking changes, incorporating or rejecting revisions, adding comments, maintaining shared workbooks, keeping history, managing conflicts, merging workbooks, password protection, read-write-modify authorization, and importing and exporting data.

6. Electronic decision support systems

Building a decision support systems to aid with managerial decision making process. The students learn the use of different scenario managers, solvers, pivot tables and simulation in electronic worksheets to analyze data and retrieve results based on various predicted cases. Assignments will be given to the students to help clarify the concepts underpinning the decision making process and how to build it electronically. Students will be asked to represent similar cases for the business environment, to illustrate them electronically and then to build system for making decision.

7. Spreadsheet research data analysis

In conjunction with graphical representation, the data analysis functions provide better understanding, evaluation and decision-making based on data. The data analysis includes calculating descriptive statistics, correlation, regression, trend, goal seeking, conditional formatting, pivot table, pivot charts, linear and nonlinear optimization. Other topics that will be covered for this purpose include the use of macros for automatic computations, especially in areas like descriptive statistic, correlation, regression, trends, optimization, and other data analysis.

All Liberal Studies courses are required to include perspectives on cultures and have a supplemental reading.

Please answer the following questions.

<p>Liberal Studies courses must include</p> <p>the perspectives and contributions of ethnic and racial minorities and of women whenever appropriate to the subject matter. Please explain how this course will meet this criterion.</p>	<p>Yes, the course will include using spreadsheet to tabulate and analyze data in different personal, organizational, cultural, and social settings. It includes collecting/studying cultural and social data and then leads to examination, analysis and reporting on the data.</p>
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<p>Liberal Studies courses require the reading and use by students of at least one non-textbook work of fiction or non-fiction or a collection of related articles. Please describe how your course will meet this criterion.</p>	<p>Yes the course requires the students to read, write and discuss books and articles about issues related to the use of spreadsheet computing in the business environment in different cultural, social and organizational settings</p>
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Teacher Education Section

- Complete this section only for a new Teacher Education course or Teacher Education course revision

<p>If Completing this Section, Check the Box to the Right:</p>	
<p>Course Designations:</p>	
<p>Key Assessments</p>	

For both new and revised courses, please attach (see the program education coordinator):

- The Overall Program Assessment Matrix
- The Key Assessment Guidelines
- The Key Assessment Rubric

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No files shared here yet.

**Narrative
Description
of the**

How the proposal relates to the Education Major

**Required
Content**

For Deans Review

Are Resources Available/Sufficient for this Course?

Is the Proposal Congruent with the College Mission?

Has the Proposer Attempted to Resolve Potential Conflicts with Other Academic Units?

Comments: