

IS-71d
UWUCC AP 11/10/15
Senate App 12/1/15

IFMG470 Data Center and Cloud Computing-New3Crs-20150-10-19

Form Information

First Step: 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

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

Fourth Step: Click on EDIT CONTENTS and start completing the template. When exiting or done, click save on bottom right

When ready to submit click on the workflow icon and hit approve. It will then move to the chair as the next step in the workflow.

Please direct any questions to curriculum-approval@iup.edu

*Indicates a required field

Proposer*	Azad Ali	Proposer Email*	azad.ali@iup.edu
Contact Person*	Dr. Jim Rodger	Contact Email*	jrodger@iup.edu
Proposing Department/Unit*	Information Systems and Decision Science	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

471

(C) Course Title*

Data Center and Cloud Computing Fundamentals

(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)

IFMG 254 and 360

(J) Co-requisite(s)

This means that another course must be taken in the same semester as the proposed course

(K) Additional Information

Check all that apply. Note: Additional documentation will be required

**** Teacher Education: Please complete the Teacher***

Education section of this form (below)

**** Liberal Studies: Please complete the Liberal Studies***

section of this form (below)

**** Distance Education: Please complete the Distance***

Education section of this form (below)

(L) Recommended Class Size

YES

Number (Enter Zero if No):30

If YES: (Check one of the following reasons and provide a narrative explanation)

Pedagogical
Explain (required):

Challenging technological concepts and fundamentals. Need enough interactions in discussion and lab experiences in order to truly understand and develop skills

(M) Catalog Description*

Guidelines: Do not include pre/co-requisite information here. The registrar prefers a concise description of course content, beginning with an active verb.

Introduces the building and managing of data centers as cloud on the network. Focuses on the fundamentals regarding data center system configuration, networking, storage and application. Examines different kinds of cloud service and delivery model. Discusses the management of data center security.

(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.

By the end of the class, students should be able to:

1. Comprehend data center fundamental concepts and operation model
2. Acquire knowledge about the special networking and storage technology for data centers
3. Examine cloud security management issues
4. Analyze different kinds of cloud services
5. Understand cloud architecture 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.

Data center basics

Cloud –enabling technology in a data center

Special networking and storage for cloud computing

Cloud computing services

Cloud service delivery model

Data center security

Cloud service security

Cloud service cost metrics and pricing model

Service quality metrics

Cloud computing infrastructure

Rationale for Proposal

(P) Why is this Course Being Proposed?*

Cloud computing through data centers is a trendy development and is gaining momentum quarter by quarter. Leading IT vendors such as Amazon, Google, Oracle, IBM, Microsoft and Salesforce.com, etc. all have invested billions of dollars providing cloud computing service. Cloud computing knowledge and concepts will be a building block to develop further skills in IT and computing industries.

(Q) University Senate Summary of Rationale




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

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

Check all that apply

Free Elective

If Other, please explain:

(S) Is a Similar Class Offered in Other Departments?*	<p>NO</p> <p>Please Provide Comment:</p> <p>No similar course offered</p>				
(T) Does it Serve the College/University Above and Beyond the Role it Serves in the Department?*	<p>YES</p> <p>Please Provide Comment:</p> <p>Cloud computing through data centers is a trendy development and is gaining momentum quarter by quarter. Leading IT vendors such as Amazon, Google, Oracle, IBM, Microsoft and Salesforce.com, etc. all have invested billions of dollars providing cloud computing service. Cloud computing knowledge and concepts will be a building block to develop further skills in IT and computing industries.</p>				
(U) Who is the Target Audience for the Course?*	<p>Department Elective</p> <p>If Other, please explain:</p>				
(V) Implications for Other Departments*	<p>A. What are the implications for other departments?</p> <p><i>(For Example: overlap of content with other disciplines, requirements for other programs)</i></p> <p>No implications on other departments</p> <p>B. How have you addressed this with other department(s) involved? What was the outcome of that attempt?</p>				
(W) Attach Supporting Documents for Implications, if Necessary	<table border="1"> <thead> <tr> <th data-bbox="386 1283 423 1304">File</th> <th data-bbox="1214 1283 1300 1304">Modified </th> </tr> </thead> <tbody> <tr> <td colspan="2" style="height: 20px;"> </td> </tr> </tbody> </table>	File	Modified 		
File	Modified 				
(X) Are the Resources Adequate?*	<p><i>(i.e. faculty, space, equipment, laboratory supplies, library materials, travel funds, etc.)</i></p> <p>NO</p> <p>Please Provide Comment:</p>				

Distance Education Section

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

If Completing this Section,

Check the Box to the Right:

Course Prefix/Number

Course Title

Type of Proposal

See CBA, Art. 42.D.1 for Definition

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.

Rationale for Proposal (Required Questions from CBA)

How is/are the instructor(s) qualified

in the Distance Education delivery

method as well as the discipline?

For each outcome in the course, describe

how the outcome will be achieved using

Distance Education technologies.

How will the instructor-student and

student-student interaction take place?

(if applicable)

How will student achievement be evaluated?

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	<i>Please mark the designation(s) that apply - must meet at least one</i>
Expected Undergraduate Student Learning Outcomes (EUSLOs)	<i>Describe how each Student Learning Outcome in the course enables students to become Informed Learners, Empowered Learners and/or Responsible Learners</i> <i>See http://www.iup.edu/WorkArea/DownloadAsset.aspx?id=181694</i>
Description of the Required Content for this Category	<i>Narrative on how the course will address the Selected Category Content</i>

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

Please answer the following questions.

Liberal Studies courses must include 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.	
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**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.

Teacher Education Section

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

**If Completing
this Section,**

**Check the
Box to the
Right:**

**Course
Designations:**

**Key
Assessments**

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

File

Modified ^

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: