

Graduate Council Curriculum Committee
September 29, 2014
12:00 p.m., MH 395

Agenda

1. Welcome and call to order
2. Revisions to the Instructional Design graduate certificate program – CEHP
3. Addition of a Mod/Sim Behavioral Cybersecurity graduate certificate - CGS
4. Courses and special topics
5. Adjournment

Members of the Graduate Council Curriculum Committee:

Deborah Breiter, Chair, RCHM
Steven Collins, COS
Paul Dombrowski, CAH
Charles Kelliher, CBA
Art Weeks, CECS
Steven Ebert, COM
Linda Gibson-Young, CON
Guifang Li, COP
Donna Malvey, COHPA
Joyce Nutta, CEHP
Terrie Sypolt, LIB
Lucretia Cooney, GSA
Jana Jasinski, CGS Liaison



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: Instructional Design & Technology

Proposed Effective Term/Year: Summer 2015

Unit(s) Housing Program: College of Education & Human Performance

Name of program, track and/or certificate: Instructional Design for Simulations Certificate program

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

Training and educational programs are now incorporating stand alone and PC-based simulations and games to enhance human motivation and performance. The result has been a growing demand for simulation and game-based training and instructional systems in corporate, government and education sectors. Initially, academic programs in Modeling and Simulation have focused on the engineering, programming and mathematical components, with relatively little attention being placed on the educational and instructional components of training simulations. Similar, game developers often have little to no knowledge of instructional design, and instructional designers have little to no knowledge of game development. The graduate certificate in the Instructional Design for Simulations takes an interdisciplinary approach to prepare instructional designers, human resource and training specialists in corporate, industry and educational settings to work with simulation and game experts to design training and educational systems that address both the technical and the instructional aspects of standalone and PC-based desktop training simulations and games.

DELIVERY - Will program be delivered: Face to face Completely online Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

All deadlines will remain consistent within the program

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

No additional requirements

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Richard Hartshorne, richard.hartshorne@ucf.edu, 407.823.1861, CED 223-K, http://education.ucf.edu/insttech/index.cfm?subid=1

Atsusi Hirumi, atsusi.hirumi@ucf.edu, CED 320-F, http://education.ucf.edu/insttech/index.cfm?subid=1

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Please check one: this action affects a: Program Track Certificate

Please check one: this action is a(n):

Addition. Please proceed to Part A.

Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

Inactivation

Temporary Suspension of Admissions. Give Length of Suspension:

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. Students active in the program are eligible to complete the program under the appropriate criteria and an appropriate teach-out plan is required. The program will be removed from the catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Department Chair: <u>[Signature]</u>	Date: <u>8/25/14</u>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	College Curriculum Committee Chair: <u>[Signature]</u>	Date: <u>9/10/14</u>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	College Dean: <u>[Signature]</u>	Date: <u>9/10/14</u>
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Chair or GSC: _____	Date: _____
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Dean, College of Graduate Studies: _____	Date: _____

APPROVAL

Provost and Executive Vice President: _____ Date: _____

Distribution: After approval is received from the Provost, distribution will be to:

- Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;
- University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

Many students from the Modeling & Simulation graduate program also decide to complete the Instructional Design for Simulations certificate program. This could typically be completed with the addition of 2 courses, as 3 of the courses in the certificate program are required courses for the M & S program. Recently, though, the M&S program removed DIG5875C(Introduction to Modeling and Simulations) as a required course, reduced the course offerings to one semester per year (summer), and replaced the course with IDS6147 (Perspectives on Modeling & Simulation), a very similar course. Consequently, the IDS certificate program would like to allow students to complete either of the courses and apply them to completion of their certificate program.

For Revisions:

Brief listing of Program Changes: (Please indicate the changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. Remember to attach the catalog copy showing changes, using Track Changes in Word.)

Replace DIG5875C: Introduction to Modeling and Simulations requirement with either DIG5875C: Introduction to Modeling and Simulations OR IDS6147: Perspectives on Modeling & Simulations.

Will students be moved from an existing program, track, or certificate into this new program, track, or certificate?

Yes No

If yes, state the name of the program or track where students are currently enrolled and provide a list of students if possible:

Will students have the option to stay in their existing program, track, or certificate? Yes No

Name Change

Are you changing the name of an existing program, track, or certificate? Yes No

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If yes, provide the new name of the program, track, or certificate:

NA

Provide the name of the current program, track, or certificate:

NA

When is the name change effective? Please note: A name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

NA

Will students have the option to stay in their existing program, track, or certificate? Yes No

NA

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

NA

new CIP:

NA

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Dr. Atsusi Hirumi, Dr. Richard Hartshorne, Dr. Glenda Gunter. All faculty members are graduate faculty at the Associate Professor level. All have taught courses related to instructional design and technology for more than a decade each, and have extensive experience in teaching, research, and service related to the field.

Dr. Peter Kincaid is a graduate research professor in the Institute for Simulation and Training. Dr. Kincaid's areas of R&D include training systems analysis, instructional technology and human factors. He has 30 years applied research and university teaching experience and currently is a member of the Human Factors Ph.D. faculty and co-director of the Modeling and Simulation graduate program at UCF.

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

There are no anticipated negative impacts on current students. A potential positive impact is that students will be provide with more course options if they opt to move forward in catalog year.

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Checklist of items to be provided:

- Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- Emails showing consultation with other units. (if applicable)
- If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

Are students currently enrolled in the program? Yes No

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then attach a “teach out” plan for all current students specifying how they can finish the program or where students will be placed if moving to another program. The “teach out” plan should specify when courses will be offered to enable students to finish. Specify whether students will remain in the existing program to finish, and if so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. Please delete course prefixes and numbers in this section if no teach out plan is required.

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012

Checklist of items to be provided:

- Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- E-mails showing consultation with other units. (if applicable)

Modifications outlined in red/bold below.

PROGRAM DESCRIPTION

The Graduate Certificate in Instructional Design for Simulations prepares educators, instructional designers, and human resource and training specialists in corporate, industry and educational settings to work with engineers, graphic artists, computer programmers and game developers to design training and instructional systems.

CURRICULUM

Recommended plans of study for earning the graduate certificate, noting when each course is offered, are provided on the Instructional Technology program [website](#) under **Plans of Study** for professional certificates.

Total Credit Hours Required:

15 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—15 Credit Hours

- EME 6613 Instructional System Design (3 credit hours)
- DIG 6432 Transmedia Story Creation (3 credit hours)
- DIG 5875C Introduction to Modeling and Simulation (3 credit hours) or **IDL6147 Perspectives on Modeling and Simulations**
- EME 6601 Instructional Simulation Design for Training and Education (3 credit hours)
- EME 6614 Instructional Game Design for Training and Education (3 credit hours)

Application Requirements

Admission is open to those with a bachelor's degree from a regionally accredited institution. An application to the graduate certificate program and official transcripts must be submitted. Applicants must [apply online](#). All requested materials must be submitted by the established deadline.

Please note: Due to restrictive state regulations, UCF is not permitted to provide online courses or instruction to students in the following states. If you reside in one of these states, you may not be permitted to enroll in or be admitted to a UCF online program. Please contact your state's higher education regulation authorities or the UCF Graduate Program (see contact information above) for more details.

- Alabama
- Maryland
- Minnesota



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for both the program and the track.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). **For revisions – attach the catalog copy showing changes (use Track Changes in Word).**

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): **Do not add complete catalog copy here.**

DELIVERY - Will program be delivered: Face to face Completely online Mixed delivery

Will program be a market tuition rate program? Yes No

Admissions deadlines: (Please specify if you have a different deadline for the track than the program)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

*In order to offer this GC as soon as possible, we are first developing all courses as Face to Face. In the future, we hope to develop newer iterations of these courses in mixed or online modalities, but the timeline for doing so is still unknown.

Page 2 of UCF Program Recommendation Form

Please check one: this action affects a: Program Track Certificate

Please check one: this action is a(n):

- Addition. Please proceed to Part A.
- Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- Inactivation
- Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. Students active in the program are eligible to complete the program under the appropriate criteria and an appropriate teach-out plan is required. The program will be removed from the catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair (Print) J. Peter Kincaid (Signature) _____ Date _____

College Academic (Print) _____ (Signature) _____ Date _____
Standards

College Dean (Print) _____ (Signature) _____ Date _____

Graduate Council (Print) _____ (Signature) _____ Date _____

Graduate Dean (Print) _____ (Signature) _____ Date _____

Approval

Provost and Vice President for Academic Affairs: _____ Date _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**)

Will students be moved from an existing program, track, or certificate into this new program, track, or certificate?

Yes No

If yes, state the name of the program or track where students are currently enrolled and provide a list of students if possible:

Will students have the option to stay in their existing program, track, or certificate? Yes No

Name Change

Are you changing the name of an existing program, track, or certificate? Yes No

If yes, provide the new name of the program, track, or certificate:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Will students have the option to stay in their existing program, track, or certificate? Yes No

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, provide a statement of who is likely to enroll and why. Please state if there is licensure or certification that depends upon this education, etc. Also, complete the following table.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

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- Emails showing consultation with other units. (if applicable)
- If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

Are students currently enrolled in the program? Yes No

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

Provide rationale for the inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then attach a “teach out” plan for all current students specifying how they can finish the program or where students will be placed if moving to another program. The “teach out” plan should specify when courses will be offered to enable students to finish. Specify whether students will remain in the existing program to finish, and if so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- E-mails showing consultation with other units. (if applicable)

Modeling and Simulation of Behavioral Cybersecurity G.C.

Curriculum Overview (13hrs total)

1) IDS 5XXX Cybersecurity: A Multidisciplinary Approach (3hrs) --- *Fall Semester*

- Modeling and simulation fundamentals as applied to cybersecurity including operating system installation and administration for hardware, network architectures, layers, protocols, and configurations. Serves as an introduction to **IDS 6XXX Behavioral Aspects of Cybersecurity** with topics such as business continuity planning and security management, and an introduction to **CIS 6XXXL Cyber Operations Lab** by providing background information relating to attack, defense, and cyber weakness at a high level.

2) IDS 6XXX Behavioral Aspects of Cybersecurity (3hrs) --- *Spring Semester*

- Focus on human, social, and behavioral issues related to cybersecurity including organizational management techniques, motives for cyber crimes, risk and threat analysis, and ethics and legal issues. Top modeling and simulation techniques and some relevant psychological issues including human systems integration and human computer interaction will be applied as they relate to securing data, computers, and the networks on which these reside.
- Prerequisite: IDS 5XXX Cybersecurity: A Multidisciplinary Approach

3) CIS 6XXXL Cyber Operations Lab (3hrs) --- *Summer Semester*

- Hands-on approach to learning programming, software, and hardware components for the cybersecurity operations as related to topics such as system administration, firewalls, cyber attack, cyber defense, physical security, operations security, and establishing secure architectures at the network and computer level.
- Prerequisite: IDS 5XXX Cybersecurity: A Multidisciplinary Approach

4) IDS 6XXX Emerging Cyber Issues (1hr) --- *Summer Semester*

- Discuss emerging topics in cybersecurity by examining current events and coordinating guest speakers from expert leaders in industry. Identify a topic and required resources to complete a multi-disciplinary Modeling & Simulation capstone project. Develop annotated topical outline for Modeling & Simulation capstone report

5) IDS 6916 Simulation Research Methods and Practicum (3hrs) – *Fall Semester*

- Interdisciplinary teams of students conduct fundamental and applied research on contemporary issues in modeling, simulation, and training. Cybersecurity certificate students will be required to product projects relating to cybersecurity and behavioral aspects of cybersecurity.

Course development and offering will be through the CS division of CECS. They are routing this course proposal through their divisional and college committees, and will submit for Graduate Council review ASAP.

Proposed Graduate Catalog Copy

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[Modeling and Simulation of Behavioral Cybersecurity Certificate](#) ▼

College : Graduate Studies	Degree : CRT
Department :	Option : N/A
Program Websites : http://www.ist.ucf.edu/grad/index.html	

TRACK DESCRIPTION

The Graduate Certificate in Modeling and Simulation of Behavioral Cybersecurity provides students with an interdisciplinary modeling and simulation approach to cybersecurity with a particular emphasis on the behavioral aspects of cybersecurity and cyber operations. This graduate certificate is beneficial to individuals who have an interest in interdisciplinary studies and problem solving for modeling, simulation, and behavioral aspects of cybersecurity.

CURRICULUM

Total Credit Hours Required:

13 Credit Hours Minimum beyond the Bachelor's Degree

Students must complete a total of 16 credit hours in courses in the required competency areas of Modeling and Simulation Fundamentals, Testing and Evaluation, and Modeling Techniques and Applications.

Required Courses—13 Credit Hours

- IDS 5XXX Cybersecurity: A Multidisciplinary Approach (3 credit hours) (Fall)
- IDS 6XXX Behavioral Aspects of Cybersecurity (3 credit hours) (Spring)
- CIS 6XXXL Cyber Operations Lab (3 credit hours) (Summer)
- IDS 6XXX Emerging Cyber Issues (1 credit hour) (Summer)
- IDS 6916 Simulation Research Methods and Practicum (3 credit hours) (Fall)

APPLICATION REQUIREMENTS

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline.

In addition to the [general UCF graduate application requirements](#), applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended
- Résumé or Curriculum Vitae

Application Deadlines

In State	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	-	Jul 15		-
International Applicants	-	-	-	-
International Transfer Applicants	-	-	-	-

Contact **INFO**

Graduate Program

J. Peter Kincaid PhD

pkincaid@ist.ucf.edu

Telephone: 407-882-1330

Partnership 2 Bldg 131E [Map](#)

Sabrina Kalish MA

sabrina.kalish@ucf.edu

Telephone: 407-882-1407

Partnership 2 Building, Room 131D [Map](#)

Graduate Admissions

Laura Czerkies

gradadmissions@ucf.edu

Telephone: 407-823-2766

Millican Hall 230 [Map](#)

[Online Application](#)

[Graduate Admissions](#)

Mailing Address

UCF College of Graduate Studies

Millican Hall 230

PO Box 160112

Orlando, FL 32816-0112

Institution Codes

GRE: 5233

GMAT: RZT-HT-58

TOEFL: 5233

ETS PPI: 5233

Sabrina Kalish

From: Sabrina Kalish
Sent: Tuesday, September 16, 2014 11:52 AM
To: Charles Reilly
Cc: Ross Hinkle; Kincaid, Peter (pkincaid@ist.ucf.edu); wiegand@ist.ucf.edu
Subject: Modeling and Simulation of Behavioral Cybersecurity
Attachments: GCOverview.docx

Chuck,

It's been a while, and I'd like to follow-up with you since we last met together in Ross Hinkle's office about a certificate proposal in the area of behavioral aspects of cybersecurity.

We've continued to work on the curriculum and are preparing to submit for Graduate Council review very shortly. However, we have the remaining action item of coordinating with related graduate programs to agree on accepting the full M&S for Behavioral Cybersecurity GC into their existing master's degree programs if a GC graduate wishes to continue towards a UCF master's degree. The GC is being proposed as 13 credit hours total – the curriculum overview is attached for your review.

We'd like your help with identifying potential partnering programs and initiating the conversation with them so that they know there is support from CGS and internally from CECS as well. If I recall correctly, we previously identified Digital Forensics MS, Computer Science MS, and Computer Engineering MS as possible collaborators. Are there any others?

And, can you confirm if/when you've made contact with the department heads and/or program directors? Once I have confirmation, I can follow-up and send them a formal e-mail to request their partnership and attach to our proposal.

Thank you,
Sabrina

Sabrina Kalish, M.A.
Coordinator, Modeling & Simulation Graduate Program
University of Central Florida
Phone: (407) 882-1407
Mailcode: 0544
www.ist.ucf.edu/grad



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