To: Dr. Mark Archambault, Assistant Dean of Academics, College of Engineering and Science
From: Dr. Philip Bernhard, Head, Department of Computer Engineering and Sciences
Date: October 30, 2018
Re: Changes to the Computer Information Systems (CIS) AS and BS programs

We propose to remove two courses from the CIS/AS program and replace them with two new courses. We also propose to remove six courses from the CIS/BS program and replace them with six new courses. The purpose of the changes is to 1) update the programs and bring them more into alignment with the Association for Computing Machinery (ACM) curriculum guidelines for Information Systems programs, and 2) create a two-course programming sequence that uses one language rather than two. The specific changes are as follows:

Remove the following courses from the CIS/AS program:
- CIS 2304 Survey of Software Systems
- CIS 2502 C++

Add the following new courses to the CIS/AS program:
- CIS 1100 Foundations of Information Systems
- CIS 2503 Advanced Java

Remove the following courses from the CIS/BS program:
- CIS 2304 Survey of Software Systems
- CIS 2502 C++
- CIS 3315 Decision Support Systems
- EMG 3327 Management Information Systems
- EMG 4005 Business Research Skills
- EMG 4006 Business Plan Research

Add the following new courses to the CIS/BS program:
- CIS 1100 Foundations of Information Systems
- CIS 1200 Information Technology Fundamentals
- CIS 2100 System Administration and Maintenance
- CIS 2503 Advanced Java
- CIS 3100 Information Systems Security
- CIS 4100 Enterprise Architecture
**Florida Institute of Technology**

**ADDITION TO THE CURRICULUM**

This is a request for reactivation of a course in the system. **Yes** ☐ **No** ☐

New courses are available beginning with the fall term in which they appear in the University Catalog.

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<th>Fall 2019</th>
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*Justify level if 1000-level* and no co- or prerequisites (e.g., 1301)

No previous knowledge of information systems required

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<th>CLASS HOURS</th>
<th>45/semester</th>
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<th>45/semester</th>
<th>LAB HOURS</th>
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<th>CONTACT HOURS (CEU ONLY)</th>
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DEPARTMENT
Computer Engineering and Sciences
(e.g., Biological Sciences)

SCHEDULE TYPE
Lecture (A)

(e.g., Lecture, Lab or Special Topics/Project)

☐ COLLEGE OF AERONAUTICS—23
☐ COLLEGE OF ENGINEERING AND SCIENCE—30
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS—25
☐ NATHAN M. BISK COLLEGE OF BUSINESS—24

COMPUTER TITLE
Foundations of Info Sys

Restricted to 25 characters, including spaces

This course will be entered into the system as: BI-Level ☐ Cross-Listed ☐ Dual-Numbered ☐ Full-Load ☐ None of these/Standard Listing ☐

CATALOG TITLE
Foundations of Information Systems

CATALOG DESCRIPTION OF COURSE
Restricted to 350 characters, including spaces

Introduces information systems, their key components, and how these components can be integrated and managed. Discusses how information is used in organizations and how information systems improve quality, efficiency and agility. Also introduces systems development concepts, technology acquisition, and prevalent and emerging software systems.

This description has been approved by the catalog office [Signature] 10-23-2018

Catalog & Curriculum Manager

In addition, please attach a course syllabus and/or more detailed description.

**RESTRICTIONS**

- ☐ Prerequisite ONLY
- ☐ Corequisite ONLY
- ☐ BOTH Prerequisite/Corequisite

Grades to be Issued
- ☐ A, B, C, D, F
- ☐ A, B, C, D, F, CEU/Audit
- ☐ CEU
- ☐ S, U
- ☐ P, F
- ☐ Other

**ADDITIONAL RESTRICTION**

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Please indicate old course information and the date/term the course may be removed from the system:

- ☐ Yes ☐ No Will this course be used to measure program-level student learning outcomes? If yes, review and signature required **

- ☐ Yes ☐ No Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach "Q" materials for review.

- ☐ Yes ☐ No Will this course impact any existing programs? If yes, attach "Changing Graduation Requirements" for each program impacted.

- ☐ Yes ☐ No Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP2 Committee.

APPROVALS: On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs, or Undergraduate Curriculum Committee Chair for placement on agenda.

[Signatures and dates]

Chair, Graduate Council
Date

Chair, Undergraduate Curriculum Committee
Date

[Signatures and dates]

Chair, Academic Programs Assessment Committee
Date

**Chair, Academic Programs Assessment Committee**

**REGISTRAR'S USE ONLY**

SCACRSE  SCACERL  SCACPRED  SCABASE  ACALOG

SCARRSE  CIP Code  Operator Init  Date

Catalog & Curriculum Manager
Date

Florida Institute of Technology • Office of the Registrar
150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827
RGR-371-818
CIS 1100 – Foundations of Information Systems (3 credits)

Course Information:

Catalog Description: Introduces information systems, their key components, and how these components can be integrated and managed. Discusses how information is used in organizations and how information systems improve quality, efficiency, and agility. Also introduces system development concepts, technology acquisition, and prevalent and emerging software systems.

Textbook:


Prerequisite: N/A

Expected Outcomes: By the end of the course, students will have knowledge of the terminology and fundamental principles of computer and information security.

More specifically, they will be prepared to:

- Understand how and why information systems are used.
- Explain the technology, people, and organizational components of information systems.
- Understand the value of information systems, and be able to formulate a business case for a new information system, including estimation of both costs and benefits.
- Understand how businesses use information systems to provide the information needed to gain business intelligence, support decision making, and gain competitive advantage.
- Understand how information systems foster stronger relationships with customers and suppliers and how these systems are widely used to enforce organizational structures and processes.
- Understand how organizations develop and acquire information systems and technologies.

Course Topics:

- Information systems components (1 week)
- Information systems in organizations (1 week)
- Valuing information systems (1 week)
- Information systems infrastructure (1 week)
- Security of information systems (1 week)
- Business intelligence (1 week)
- Enterprise-wide information systems (1 week)
• Development and acquisition (1 week)

Grading Policy:

• Assignments: 45%
• Classroom and online participation: 5%
• Midterm Exam: 25%
• Final Exam: 25%

Grading Scale:

A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Bibliography:

New courses are available beginning with the fall term in which they appear in the University Catalog.

Subject: C I S  
Course No.: 1 2 0 0  
Credit Hours: 3  
Academic Year to be added to the file: Fall 2019

Class Hours: 45/semester  
Lecture Hours: 45/semester  
Lab Hours: NA  
Contact Hours (CEU Only): NA

Department: Computer Engineering and Sciences  
(Schedule Type: Lecture (A))

- College of Aeronautics—23
- College of Engineering and Science—30
- College of Psychology and Liberal Arts—25
- Extended Studies—90
- Nathan M. Bisk College of Business—24

Computer Title: Information Tech Fund

Catalog Description of Course: Restricted to 350 characters, including spaces

Introduces software architectures and networks typically used in an IT infrastructure. Focuses on Internet, cloud and wireless solutions, computer and network security, and regulatory compliance. Provides the knowledge and skills for communicating with professionals and prepares for interaction with external vendors of IT components.

This description has been approved by the catalog office: 

Catalog & Curriculum Manager: 10-23-2018

In addition, please attach a course syllabus and/or more detailed description.

Restrictions:

- Prerequisite ONLY
- Corequisite ONLY
- Both Prerequisite/Corequisite
- Other

Grades to Be Issued:

- A, B, C, D, F
- A, B, C, D, F, CEU/Audit
- CEU
- S, U
- P, F
- Other

Please indicate old course information and the date/term the course may be removed from the system:

- Yes   Yes  No  No  Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.**
- Yes   Yes  No  No  Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach “Q” materials for review.
- Yes   No  No  No  Will this course impact any existing programs? If yes, attach “Changing Graduation Requirements” form for each program impacted.
- Yes   No  No  No  Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP2 Committee.

APPROVALS: On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs, or Undergraduate Curriculum Committee Chair for placement on agenda.

Chair, Graduate Council: 11/19/2018  
Chair, Undergraduate Curriculum Committee: 11/19/2018

Chair, Academic Programs Assessment Committee:  

Catalog & Curriculum Manager: Date

Registrar’s Use Only:

SCACRSE  SCADETL  SCAPREQ  SCABASE  ACATALOG

SC carrers  CIP Code  Operator init.  Date

Florida Institute of Technology • Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827

RGR-371-818
CIS 1200 – Information Technology Fundamentals (3 credits)

Course Information:

Catalog Description: Introduces systems, architectures, and networks typically used in an IT infrastructure. Focuses on Internet, cloud, and wireless systems, computer and network security, and regulatory compliance. Gives students the knowledge and skills for communicating with professionals and prepares them for interaction with external vendors of IT components.

Textbook:


Prerequisite: CIS 1100

Expected Outcomes: By the end of the course, students will have knowledge of the terminology and fundamental principles of Information Technology.

More specifically, they will be prepared to:

- Understand core elements of an IT infrastructure, such as clients, servers, network devices, wired and wireless network links, systems software, and security mechanisms.
- Understand the role of IT control and service management frameworks in small to large IT infrastructures.
- Understand the principles underlying virtual computing and the opportunities that it creates.
- Understand through practical examples how protocols are used to enable communication between computing devices.
- Design an IT infrastructure for a small organization, including a network based on standard components, servers, security mechanisms, and diverse computing clients.
- Analyze and understand the security and business continuity implications of IT infrastructure design solutions.
- Negotiate with vendors providing design and implementation solutions.

Course Topics:

- Introduction to Information Technology (1 week)
- The Internet & Cyberspace (1 week)
- Hardware & Software (1 week)
- Communications, Networks & Cyberthreats (1 week)
• Personal, Wireless and IOT Technology (1 week)
• Databases, Information Systems & Big Data (1 week)
• Programming, Languages, and Software Development (1 week)
• Development and acquisition (1 week)

Grading Policy:

• Assignments: 45%
• Classroom and online participation: 5%
• Midterm Exam: 25%
• Final Exam: 25%

Grading Scale:
A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Bibliography:

Florida Institute of Technology

ADDING A NEW COURSE TO THE CURRICULUM

This is a request for reactivation of a course in the system. Yes No

New courses are available beginning with the fall term in which they appear in the University Catalog.

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*Justify level if 1000-level and no co- or prerequisites

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<th>SCHEDULE TYPE</th>
<th>Lecture (A)</th>
<th>(e.g., Lecture, Lab or Special Topics/Project)</th>
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- COLLEGE OF AERONAUTICS—23
- COLLEGE OF ENGINEERING AND SCIENCE—30
- COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS—25
- NATHAN M. BISK COLLEGE OF BUSINESS—24
- EXTENDED STUDIES—90

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<th>COMPUTER TITLE</th>
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This course will be entered into the system as: Bi-Level Cross-Listed Dual-Numbered Full-Load None of these/Standard Listing

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CATALOG DESCRIPTION OF COURSE Restricted to 350 characters, including spaces

Introduces tasks involved in the administration of single- and multi-user computer systems. Includes managing user access, backup and recovery, network configuration, hardware and software installation, system performance analysis and tuning, scripting, and system services.

This description has been approved by the catalog office

Catalog & Curriculum Manager Date

In addition, please attach a course syllabus and/or more detailed description.

RESTRICTIONS

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<th>COURSE PREFIX/NUMBER</th>
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Course Prefix/Number

- Prerequisite ONLY
- Corequisite ONLY
- BOTH Prerequisite/Corequisite
- and
- or

GRADES TO BE ISSUED

- A, B, C, D, F
- A, B, C, D, F, CEU/Audit
- CEU
- S, U
- P, F
- Other

Please indicate old course information and the date/term the course may be removed from the system:

- Yes No Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.**
- Yes No Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach "Q" materials for review.
- Yes No Will this course impact any existing programs? If yes, attach "Changing Graduation Requirements" form for each program impacted.
- Yes No Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP2 Committee.

APPROVALS: On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs, or Undergraduate Curriculum Committee Chair for placement on agenda.

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<tr>
<th>ORIGINATOR</th>
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<th>CHAIR, GRADUATE COUNCIL</th>
<th>Date</th>
<th>DEPARTMENT HEAD/PROGRAM CHAIR</th>
<th>Date</th>
<th>CHAIR, UNDERGRADUATE CURRICULUM COMMITTEE</th>
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**Chair, Academic Programs Assessment Committee

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<td>UNIVERSITY CATALOG AND ENTERED INTO THE BANNER TERM CONTAINED ABOVE.</td>
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Catalog & Curriculum Manager Date

Florida Institute of Technology • Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827

RGR-371-816
CIS 2100 – Systems Administration & Maintenance (3 credits)

Course Information:

Catalog Description: Introduces tasks involved in the administration of single and multi-user computer systems, including managing user access, backup and recovery, network configuration, hardware and software installation, system performance analysis and tuning, scripting, and system services.

Textbook:


Prerequisite: CIS 1200

Expected Outcomes: By the end of the course, students will have knowledge of the terminology and fundamentals of systems administration and maintenance.

More specifically, they will be prepared to:

- Understand core elements of an IT infrastructure, such as clients, servers, network devices, wired and wireless network links, systems software, and security mechanisms.
- Understand the role of IT control and service management frameworks in small to large IT infrastructures.
- Understand the principles underlying virtual computing and the opportunities that it creates.
- Understand through practical examples how protocols are used to enable communication between computing devices.
- Design an IT infrastructure for a small organization, including a network based on standard components, servers, security mechanisms, and diverse computing clients.
- Analyze and understand the security and business continuity implications of IT infrastructure design solutions.
- Negotiate with vendors providing design and implementation solutions.

Course Topics:

- Introduction to Information Technology (1 week)
- The Internet & Cyberspace (1 week)
- Hardware & Software (1 week)
- Communications, Networks & Cyberthreats (1 week)
- Personal, Wireless and IOT Technology (1 week)
- Databases, Information Systems & Big Data (1 week)
- Programming, Languages, and Software Development (1 week)
- Development and acquisition (1 week)

Grading Policy:

- Assignments: 45%
- Classroom and online participation: 5%
- Midterm Exam: 25%
- Final Exam: 25%

Grading Scale:
A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Bibliography:

New courses are available beginning with the fall term in which they appear in the University Catalog.

Subject: C 1 S
Course No.: 2503 (e.g., 1301)
Credit Hours: 3
Academic Year to Be Added to the File: Fall 2019
(e.g., Fall 2018)

Class Hours: 45/semester
Lecture Hours: 45/semester
Lab Hours: NA
Contact Hours (CEU Only): NA

Department: Computer Engineering and Sciences (e.g., Biological Sciences)
Schedule Type: Lecture (A) (e.g., Lecture, Lab or Special Topics/Project)

☐ COLLEGE OF AERONAUTICS—23
☐ COLLEGE OF ENGINEERING AND SCIENCE—30
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS—25
☐ NATHAN M. BISK COLLEGE OF BUSINESS—24
☐ EXTENDED STUDIES—90

COMPUTER TITLE: Advanced Java
This course will be entered into the system as: Bi-Level ☐ Cross-Listed ☐ Dual-Numbered ☐ Full-Load ☐ None of these/Standard Listing ☒

Catalog Title: Advanced Java
Catalog Description of Course: Restricted to 350 characters, including spaces
Continues CIS 1502 Programming in Java. Covers advanced topics such as inheritance, generics, interfaces, exception handling, recursion and the Java libraries. Also covers sorting and searching. Second in a two-course sequence.

This description has been approved by the catalog office

Catalog & Curriculum Manager: [Signature] 10-23-2018

In addition, please attach a course syllabus and/or more detailed description.

Restrictions:

CIS 1502
Prerequisite Only ☐ Corequisite Only ☐ Both Prerequisite/Corequisite ☐ and or ☐

Course Prefix/Number

Present the course as: A, B, C, D, F ☐ A, B, C, D, F, CEU/Audit ☐ CEU ☐ S, U ☐ P, F ☐ Other ☐

Additional Restrictions: ☐ and or ☐

(e.g., Major, Class Level, Department Head Approval)

Please indicate old course information and the date/term the course may be removed from the system:

☐ Yes ☒ No Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.**

☐ Yes ☒ No Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach "Q" materials for review.

☐ Yes ☒ No Will this course impact any existing programs? If yes, attach "Changing Graduation Requirements" form for each program impacted.

☐ Yes ☒ No Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP Committee.

Approvals: On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs, or Undergraduate Curriculum Committee Chair for placement on agenda.

Originator: [Signature] 11/9/18
Date
Chair, Graduate Council: [Signature] 11/9/18
Date

Department Head/Program Chair: [Signature] 11/9/18
Date
Chair, Undergraduate Curriculum Committee: [Signature] 11/9/18
Date

**Chair, Academic Programs Assessment Committee

Catalog & Curriculum Manager: [Signature] 11/9/18
Date

Florida Institute of Technology • Office of the Registrar
150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827

RGR-371-818
CIS 2503 – Advanced Java (3 credits)

Course Information:

Catalog Description: A second course in the Java programming language. Covers advanced topics such as inheritance, generics, interfaces, exception handling, recursion, and the Java libraries. Also covers sorting and searching.

Textbook:


Prerequisite: CIS 1502

Expected Outcomes: By the end of the course, students will have the ability to program in the Java programming language using moderate to advanced Java features.

More specifically, they will be prepared to:

- Declare and use classes and inheritance.
- Declare and use generic data types.
- Declare and use class interfaces.
- Declare, throw, and handle exceptions.
- Understand, design, and implement recursive programs.
- Make use of predefined Java libraries.
- Understand and implement common sorting and searching algorithms.

Course Topics:

- Inheritance (1 week)
- Generics (1 week)
- Interfaces (1 week)
- Exceptions (1 week)
- Recursion (1 week)
- Libraries (1 week)
- Sorting (1 week)
- Searching (1 week)

Grading Policy:

- Assignments: 45%
- Classroom and online participation: 5%
- Midterm Exam: 25%
- Final Exam: 25%

Grading Scale:
A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Bibliography:
# Adding a New Course to the Curriculum

This is a request for reactivation of a course in the system. **Yes**  **No**

**New courses are available beginning with the fall term in which they appear in the University Catalog.**

<table>
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*Justify level if 1000-level+ and no co- or prerequisites

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### Department

**Computer Engineering and Sciences**

(e.g., Biological Sciences)

- College of Aeronautics—23
- College of Engineering and Science—30
- College of Psychology and Liberal Arts—25
- Nathan M. Bisk College of Business—24
- Extended Studies—90

### Catalog Title

**Info Systems Security**

*Restricted to 25 characters, including spaces*

This course will be entered into the system as:  
- Bi-Level  
- Cross-Listed  
- Dual-Numbered  
- Full-Load  
- None of these/Standard Listing

### Catalog Description of Course

Restricted to 350 characters, including spaces

Provides an overview of the concepts and terminology of computer security. Introduces vulnerability analysis, risk assessment and techniques for user authentication and data protection. Discusses security issues associated with email, networks and the Internet. Requires examination of recent security-related trends and technologies.

This description has been approved by the catalog office **Emory 10-28-2019**

Catalog & Curriculum Manager

### In addition, please attach a course syllabus and/or more detailed description.

### Restrictions

**C I S 2 1 0 0**

- Prerequisite ONLY
- Corequisite ONLY
- BOTH Prerequisite/Corequisite
- and
- or

### Grades to Be Issued

- A, B, C, D, F
- A, B, C, D, F, CEU/Audit
- CEU
- S, U
- P, F
- Other

### Additional Restrictions

- (e.g., Major, Class Level, Department Head Approval)

Please indicate old course information and the date/term the course may be removed from the system:

- **Yes**  **No** Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.
- **Yes**  **No** Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach "Q" materials for review.
- **Yes**  **No** Will this course impact any existing programs? If yes, attach "Changing Graduation Requirements" form for each program impacted.
- **Yes**  **No** Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP2 Committee.

### Approval

- **Chair, Undergraduate Curriculum Committee**

**Date**

- **Chair, Graduate Council**

**Date**

**OR**

- **Originator**

**Date**

- **Department Head/Program Chair**

**Date**

- **Dean of Associate Dean**

**Date**

*Chair, Academic Programs Assessment Committee*  **Date**

### Catalog & Curriculum Manager

These changes/additions have been made for the University Catalog and entered into the BANNER term named above.

Catalog & Curriculum Manager **Date**

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**Florida Institute of Technology • Office of the Registrar**

150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827

RGR-371-818
CIS 3100 – Information Systems Security (3 credits)

Course Information:

Catalog Description: Provides an overview of the concepts and terminology of computer security. Introduces vulnerability analysis, risk assessment and techniques for user authentication and data protection. Discusses security issues associated with email, networks and the Internet. Students will examine recent security-related trends and technologies.

Textbook:


Prerequisite: CIS 2100

Expected Outcomes: By the end of the course, students will have knowledge of the terminology and fundamental principles of computer and information security.

More specifically, they will be prepared to:

- List the fundamental concepts of the Information Assurance / Cyber Defense discipline.
- Describe different types of attacks and their characteristics and explain common cyber defense tools, methods and components that can be used to repel or mitigate attacks.
- Analyze common security failures and identify the specific design principles that have been violated.
- Understand the interaction between security and system usability and the importance of minimizing the impact of security mechanisms on usability.
- Identify the elements of a cryptographic system and describe which cryptographic protocols, tools and techniques are appropriate for a given situation.
- Examine the architecture of a typical, complex system and identify significant vulnerabilities, risks, and points at which specific security technologies/methods should be employed.

Course Topics:

- Security principles and practices (1 week)
- Threats, risks and vulnerabilities related to data privacy and computers (1.5 weeks)
- User authentication and access control for computers and files (1.5 weeks)
- Encryption of files and network data (1 week)
- Security in enterprise-level computing (1.5 weeks)
- Security issues related to email, networks and the World Wide Web (1.5 weeks)
Grading Policy:

- Assignments: 45%
- Classroom and online participation: 5%
- Midterm Exam: 25%
- Final Exam: 25%

Grading Scale:

A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Bibliography:

## ADDING A NEW COURSE TO THE CURRICULUM

**New courses are available beginning with the fall term in which they appear in the University Catalog.**

This is a request for reactivation of a course in the system.  
☐ Yes  ☐ No

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*Justify level if 1000-level+ and no co- or prerequisites

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☐ COLLEGE OF AERONAUTICS—23  ☐ COLLEGE OF ENGINEERING AND SCIENCE—30
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS—25  ☐ NATHAN M. BISK COLLEGE OF BUSINESS—24
☐ EXTENDED STUDIES—90

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<th>CATALOG TITLE</th>
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**CATALOG DESCRIPTION OF COURSE Restricted to 350 characters, including spaces**

Explores the design, implementation, and management of enterprise IT solutions. Covers frameworks and strategies for infrastructure and content management, hardware and software selection, and legacy system integration. Gives special attention to analysis of IT investment, cost of ownership, risk and security.

*This description has been approved by the catalog office*

[Signature]  
**Catalog & Curriculum Manager**  
**Date**

In addition, please attach a course syllabus and/or more detailed description.

**RESTRICTIONS**

| C I S | 3 1 0 0 | ☐ Prerequisite ONLY | ☐ Corequisite ONLY | ☐ BOTH Prerequisite/Corequisite | ☐ and ☐ or | GRADES TO BE ISSUED | ☐ A, B, C, D,  
|-------|--------|---------------------|---------------------|-------------------------------|------------|---------------------|------|
| Course Prefix/Number           |         |                     |                     |                               |            |                     | A, B, C, D, F | ☐ CEU  
| Course Prefix/Number           |         |                     |                     |                               |            |                     | ☐ S, U  
| Course Prefix/Number           |         |                     |                     |                               |            |                     | ☐ P, F  
| Course Prefix/Number           |         |                     |                     |                               |            |                     | ☐ Other  

**ADDITIONAL RESTRICTION** ☐ and ☐ or (e.g., Major, Class Level, Department Head Approval)

Please indicate old course information and the date/term the course may be removed from the system:

☐ Yes ☐ No Will this course be used to measure program-level student learning outcomes? If yes, review and signature required.**

☐ Yes ☐ No Will this course be used to satisfy the scholarly inquiry requirement? If yes, attach "Q" materials for review.

☐ Yes ☐ No Will this course impact any existing programs? If yes, attach "Changing Graduation Requirements" form for each program impacted.

☐ Yes ☐ No Will this course be used to satisfy the Cross Cultural (CC) requirement? If yes, attach confirmation memo from QEP2 Committee.

**APPROVALS:** On completion of description and course number verification, affix appropriate signatures as indicated, and submit to the Office of Graduate Programs or Undergraduate Curriculum Committee Chair for placement on agenda.

[Signature]  
**Chair, Graduate Council**  
**Date**

[Signature]  
**Chair, Undergraduate Curriculum Committee**  
**Date**

[Signature]  
**Chair, Academic Programs Assessment Committee**  
**Date**

**CATALOG & CURRICULUM MANAGER**

These changes/additions have been made for the University Catalog and entered into the BANNER term named above.

[Signature]  
**Catalog & Curriculum Manager**  
**Date**

**REGISTRAR’S USE ONLY**

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Florida Institute of Technology • Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6975 • 321-674-8114 • Fax 321-674-7827

RGR-371-818
CSE 4100 – Enterprise Architecture (3 credits)

Course Information:

Catalog Description: Explores the design, implementation and management of enterprise IT solutions. Students learn frameworks and strategies for infrastructure and content management, hardware and software selection, and legacy system integration. Special attention is given to analysis of IT investment, cost of ownership, risk, and security.

Textbook:


Prerequisite: CIS 3100

Expected Outcomes: By the end of the course, students will have knowledge of the terminology and fundamental principles of computer and information security.

More specifically, they will be prepared to:

- Understand a variety of frameworks used in enterprise architecture design and analysis.
- Evaluate total cost of ownership and return on investment for architectural alternatives.
- Utilize techniques for assessing and managing risk across the portfolio of the enterprise.
- Evaluate and plan for the integration of emerging technologies.
- Understand the core concepts of data and information architecture
- Understand the role of audit and compliance in enterprise architecture.
- Understand metrics for evaluating and monitoring systems supporting business processes.
- Understand the integration of enterprise systems with external partners such as customers, suppliers, and governments.

Course Topics:

- Enterprise architectures and frameworks (1.5 weeks)
- Data models and information architectures (1 week)
- Systems integration (1 week)
- Enterprise Security (1 week)
- Hardware and software acquisition (1/2 week)
- Monitoring and metrics for infrastructure and business processes (1/2 week)
- Total cost of ownership and return on investment (1/2 week)
- Audit and compliance (1/2 week)
- Risk management (1/2 week)
- Emerging technologies (1 week)

**Grading Policy:**

- Assignments: 45%
- Classroom and online participation: 5%
- Midterm Exam: 25%
- Final Exam: 25%

**Grading Scale:**

A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

**Bibliography:**

The Florida Institute of Technology

CHANGING GRADUATION REQUIREMENTS IN A MAJOR/MINOR

The addition or removal of any graduation requirement in a major or minor requires that this form, accompanied by supporting documentation, be completed and approved as indicated below. Incomplete or incorrect forms will not be processed.

COLLEGE: College of Engineering and Science

DEPARTMENT: Department of Computer Engineering and Sciences

DEGREE LEVEL: AS

PROGRAM TITLE: Computer Information Systems

TO BE INITIATED WITH CATALOG YEAR: 2019/2020

CHANGE REQUESTED FOR: [ ] major program [ ] minor program

Major/Minor Code: 3530

Program changes are effective beginning with the fall term in which they appear in the University Catalog.

☐ Yes ☐ No Will this change impact the program's assessment process? If yes, attach a description of how the assessment will be impacted and the new process.

DESCRIPTION OF REQUESTED CHANGES: Attach a more detailed description and any supporting documentation.

The following courses should be removed from the program:

CIS 2304 Survey of Software Systems
CIS 2502 C++

The following courses should be added to the program:

CIS 1100 Foundations of Information Systems
CIS 2503 Advanced Java

Approvers: On completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee, for approval below and forward to the Catalog & Curriculum Manager.

Original/Date: 11/19/2018

Chair, Graduate Council/Date: 11/19/2018

OR

Department Head / Major Program Chair/Date: 11/19/2018

Chair, Undergraduate Curriculum Committee/Date: 11/19/2018

Associate Dean/Date: 11/19/2018

REGISTRAR'S USE ONLY

CAPP/Degree Evaluation

☐ Yes ☐ No Update completed ________________ Initials ________________

Academic Year _____________________________ Date ________________

Catalog Management System

☐ Yes ☐ No Update completed ________________ Initials ________________

Academic Year _____________________________ Date ________________
The addition or removal of any graduation requirement in a major or minor requires that this form, accompanied by supporting documentation, be completed and approved as indicated below. Incomplete or incorrect forms will not be processed.

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TO BE INITIATED WITH CATALOG YEAR 20_19_20_20

CHANGE REQUESTED FOR □ major program □ minor program

Major/Minor Code 7630

Program changes are effective beginning with the fall term in which they appear in the University Catalog.

☐ Yes ☐ No  Will this change impact the program's assessment process? If yes, attach a description of how the assessment will be impacted and the new process.

DESCRIPTION OF REQUESTED CHANGES Attach a more detailed description and any supporting documentation

The following courses should be removed from the program:
- CIS 2304 Survey of Software Systems
- CIS 2502 C++
- CIS 3315 Decision Support Systems
- EMG 3327 Management Information Systems
- EMG 4005 Business Research Skills
- EMG 4006 Business Plan Research

The following courses should be added to the program:
- CIS 1100 Foundations of Information Systems
- CIS 1200 Information Technology Fundamentals
- CIS 2100 System Administration and Maintenance
- CIS 2503 Advanced Java
- CIS 3100 Information Systems Security
- CIS 4100 Enterprise Architecture

Apprvals: On completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee, for approval below and forward to the Catalog & Curriculum Manager.

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