# PROPOSAL SUMMARY AND ROUTING FORM

**Proposal Title:** Modify ECNS-115,125,215 and 225

Initiating Unit or Individual: ECNS Program Faculty  
Contact Person's Name: Ron Mehringer  
e-mail: mehrinr@ferris.edu  
phone: X3064  

**Date or Term of Proposal Implementation:** Fall 2011

- **Group I - A** - New degree/major or major, redirection of a current offering, or elimination of a degree, major or minor  
- **Group I - B** - New minors or concentrations  
- **Group II - A** - Minor curriculum clean-up and course changes  
- **Group II - B** - New Course  
- **Group III - Certificates**  
- **Group IV - Off-Campus Programs**

<table>
<thead>
<tr>
<th>Group/Individual</th>
<th>Signature</th>
<th>Date</th>
<th>Vote/Action *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Faculty</td>
<td>Mehrinr Stahlin</td>
<td>11/16/10</td>
<td>6-0 Support</td>
</tr>
<tr>
<td>Program Coordinator</td>
<td>Mehrinr Stahlin</td>
<td>11/10/10</td>
<td>Support</td>
</tr>
<tr>
<td>School Curriculum Committee</td>
<td>Debbie Dawson</td>
<td>11/16/10</td>
<td>4-0 Support</td>
</tr>
<tr>
<td>School Director</td>
<td>Debbie Dawson</td>
<td>11/16/10</td>
<td>Support</td>
</tr>
<tr>
<td>College Curriculum Committee</td>
<td></td>
<td>11/30/10</td>
<td>10 Support</td>
</tr>
<tr>
<td>Dean</td>
<td>Ron Mehrinr</td>
<td>11/26/10</td>
<td>Support</td>
</tr>
<tr>
<td>University Curriculum Committee</td>
<td></td>
<td>12/7/11</td>
<td>Support 6-0</td>
</tr>
<tr>
<td>Senate</td>
<td></td>
<td>2/9/11</td>
<td>Support</td>
</tr>
<tr>
<td>Academic Affairs</td>
<td></td>
<td>2/19/11</td>
<td>Support</td>
</tr>
</tbody>
</table>

* Support with Concerns or Not Support must include a list of specific concerns. Votes must be shown for faculty groups. Administrators check appropriate action taken.

---

To be completed by Academic Affairs

President (Date Approved)  
Board of Trustees (Date Approved)  
President's Council (Date Approved)

---

Page 1 of 11
1. Proposal Summary
This proposal changes the catalog descriptions of ECNS-115,125,215 and 225 to reflect new material and organization of these four networks courses. Changes to these catalog descriptions are minor in nature.

2. Summary of All Course Action Required*

a. Newly Created Courses to FSU:
Prefix  Number  Title

b. Courses to be Deleted From FSU Catalog:
Prefix  Number  Title

c. Existing Course(s) to be Modified:
Prefix  Number  Title
ECNS   115      Networks 1
ECNS   125      Networks 2
ECNS   215      Networks 3
ECNS   225      Networks 4

d. Addition of existing FSU courses to program
Prefix  Number  Title


e. Removal of existing FSU courses from program
Prefix  Number  Title
3. Summary of All Consultations

<table>
<thead>
<tr>
<th>Form Sent (B or C)</th>
<th>Date Sent</th>
<th>Responding Dept.</th>
<th>Date Received &amp; by Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Will External Accreditation be Sought? (For new programs or certificates only)

__________ Yes  ______X____ No

If yes, name the organization involved with accreditation for this program.

5. Program Checksheets affected by this proposal.

None
MODIFY COURSE
Course Data Entry Form

FORM F

I. ACTION TO BE TAKEN: MODIFY AN EXISTING COURSE
Notes:
1. Complete all parts of Sections I and II; complete only those items in Section III that represent changes.
2. If either prefix or number is being changed, use 'Delete Course' and 'Create New Course' forms rather than this form.

a. List the changes to be made (See Proposed Changes a through p below):

b. Term Effective (6 digit code only): 201104
Examples: 200801(Spring), 200805(Summer), 200808(Fall)
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. CURRENT: Include information that is in the current course database.

a. Course Prefix: ECNS
b. Number: 115

c. Enter Contact Hours per week in boxes.
LECture 2  LAB 3  INDependent Study – Check (x)  
Practicum:  Seminar:

d. Course Title: Networks 1

III. PROPOSED CHANGES: Complete only those boxes that represent proposed changes identified in Section I. Leave all other spaces blank.

a. Course Prefix: 
b. Number: 

c. Enter Contact Hours per week in boxes.
LECture  LAB  INDependent Study – Check (x)  
Practicum:  Seminar:

d. Course Title: (Limit to 30 characters/spaces.)

e. College Code:  f. Department Code:

Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type: Variable  Fixed  h. Maximum Credit Hours  i. Minimum Credit Hours

j. May Be Repeated for Added Credit: Check (x) Yes  No

k. Levels: Check (x) Undergraduate  Graduate  Professional

I. Grade Method: Check (x) Normal Grading  Credit/No Credit only (Pass/Fail)

m. CATALOG DESCRIPTION – See Attached Sheet

n. Term(s) Offered:  (See instructions for listing.)
o. Max. Section Enrollment: 

p. Prerequisites/Co-requisites/Restrictions: Limited to 100 spaces.

UCC Chair Signature/Date: 2/1/11

Academic Affairs Approval Signature/Date: 2/1/11

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
\[\square\] Basic Skill (BS)  \[\square\] General Education (GE)  \[\square\] Occupational Education (OC)  \[\square\] G.E. Codes

Office of the Registrar use ONLY

Date Rec’d:  Date Completed:  Entered: SCACRSE  SCADETL  SCARRES  SCAPREQ  

Page 4 of 11
Catalog Description for ECNS 115

CCNA Exploration Network Fundamentals is the first of four courses leading to the Cisco Certified Network Associate (CCNA) designation. CCNA 1 introduces Cisco Networking Academy Program students to the fundamental networking concepts and technologies. It provides a theoretically-rich, hands-on introduction to networking and the Internet.

As the course title states, the focus of this course is on learning the fundamentals of networking. In this course, you will learn both the practical and conceptual skills that build the foundation for understanding basic networking. First, you will examine human versus network communication and see the parallels between them. Next, you will be introduced to the two major models used to plan and implement networks: OSI and TCP/IP. You will gain an understanding of the "layered" approach to networks and examine the OSI and TCP/IP layers in detail to understand their functions and services. You will become familiar with the various network devices, network addressing schemes and, finally, the types of media used to carry data across the network.

In this course, you will gain experience using networking utilities and tools, such as Packet Tracer and Wireshark®, to explore networking protocols and concepts. These tools will help you to develop an understanding of how data flows in a network. A special "model Internet" is also used to provide a test environment where a range of network services and data can be observed and analyzed.
I. ACTION TO BE TAKEN: MODIFY AN EXISTING COURSE
Notes:
3. Complete all parts of Sections I and II; complete only those items in Section III that represent changes.
4. If either prefix or number is being changed, use ‘Delete Course’ and ‘Create New Course’ forms rather than this form.

a. List the changes to be made (See Proposed Changes a through p below):

b. Term Effective (6 digit code only): 2010  Examples: 200801(Spring), 200805(Summer), 200808(Fall)
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. CURRENT: Include information that is in the current course database.

<table>
<thead>
<tr>
<th>a. Course Prefix</th>
<th>b. Number</th>
<th>c. Enter Contact Hours per week in boxes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECNS</td>
<td>125</td>
<td>LECTure 2 L AB 2 INDependent Study – Check (x) □ Practicum: □ Seminar: □</td>
</tr>
</tbody>
</table>

d. Course Title: Networks 2

e. College Code: f. Department Code:

III. PROPOSED CHANGES: Complete only those boxes that represent proposed changes identified in Section I. Leave all other spaces blank.

<table>
<thead>
<tr>
<th>a. Course Prefix</th>
<th>b. Number</th>
<th>c. Enter Contact Hours per week in boxes.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LECTure □ L AB □ INDependent Study – Check (x) □ Practicum: □ Seminar: □</td>
</tr>
</tbody>
</table>

d. Course Title: (Limit to 30 characters/spaces.)

e. College Code: f. Department Code:

Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type: □ Variable □ Fixed h. Maximum Credit Hours □ i. Minimum Credit Hours □

j. May Be Repeated for Added Credit: Check (x) □ Yes □ No

k. Levels: Check (x) □ Undergraduate □ Graduate □ Professional

l. Grade Method: Check (x) □ Normal Grading □ Credit/No Credit only (Pass/Fail)

m. CATALOG DESCRIPTION – See Attached Sheet

n. Term(s) Offered: (See instructions for listing.) o. Max. Section Enrollment:

p. Prerequisites/Co-requisites/Restrictions: Limited to 100 spaces. 

UCB Chair Signature/Date: 2/11/16

Academic Affairs/Approval Signature/Date: 2/10/16

Office of the Registrar use ONLY

Date Rec'd: ___ Date Completed: ___ Entered: SCACRSE _ SCADTL _ SCARRES _ SCAPREQ _
m. Catalog Description for ECNS 125

CCNA Exploration Routing Protocols and Concepts is the second of four courses leading to the Cisco Certified Network Associate (CCNA) designation. CCNA 2 introduces Cisco Networking Academy Program students to the fundamentals of routing. It provides a theoretically-rich, hands on introduction to networking and the Internet.

The primary focus of this course is on routing and routing protocols. The goal is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. This course includes both static routing and dynamic routing protocols. By examining multiple routing protocols, you will gain a better understanding of each of the individual routing protocols and a better perspective of routing in general. Learning the configuration of routing protocols is fairly simple. Developing an understanding of the routing concepts themselves is more difficult, yet is critical for implementing, verifying, and troubleshooting routing operations.

Each static routing and dynamic routing protocol chapter uses a single topology throughout that chapter. You will be using that topology to configure, verify, and troubleshoot the routing operations discussed in the chapter.

The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure routing operations while reinforcing the concepts learned in each chapter.
I. ACTION TO BE TAKEN: MODIFY AN EXISTING COURSE
   Notes:
   5. Complete all parts of Sections I and II; complete only those items in Section III that represent changes.
   6. If either prefix or number is being changed, use 'Delete Course' and 'Create New Course' forms rather than this form.
   a. List the changes to be made (See Proposed Changes a through p below):
   b. Term Effective (6 digit code only): 201102
      Examples: 200801(Spring), 200805(Summer), 200808(Fall)
      Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. CURRENT: Include information that is in the current course database.
   a. Course Prefix
   b. Number
   c. Enter Contact Hours per week in boxes.
      ECNS
      215
      Lecture 2
      Lab 3
      INDependent Study – Check (x)
      Practicum:
      Seminar:
   d. Course Title: Networks 3

III. PROPOSED CHANGES: Complete only those boxes that represent proposed changes identified in Section I. Leave all other spaces blank.
   a. Course Prefix
   b. Number
   c. Enter Contact Hours per week in boxes.
      Lecture
      Lab
      INDependent Study – Check (x)
      Practicum:
      Seminar:
   d. Course Title: (Limit to 30 characters/spaces.)
   e. College Code:
   f. Department Code:
   Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.
   g. Type:
      □ Variable
      □ Fixed
   h. Maximum Credit Hours
   i. Minimum Credit Hours
   j. May Be Repeated for Added Credit: Check (x)
      Yes
      No
   k. Levels: Check (x)
      □ Undergraduate
      □ Graduate
      □ Professional
   l. Grade Method: Check (x)
      □ Normal Grading
      □ Credit/No Credit only (Pass/Fail)
   m. CATALOG DESCRIPTION – See Attached Sheet
   n. Term(s) Offered:
      (See instructions for listing.)
   o. Max. Section Enrollment:
   p. Prerequisites/Co-requisites/Restrictions: Limited to 100 spaces.

UCC Chair Signature/Date: 2/11/11
Academic Affairs Approval Signature/Date: 2/11/11

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
Basic Skill (BS) General Education (GE) Occupational Education (OC) G.E. Codes

Office of the Registrar use ONLY
Date Rec'd: Date Completed: Entered: SCACRSE __ SCADETL __ SCARRES __ SCAPREQ __
m. Catalog Description for ECNS 215

CCNA Exploration LAN Switching and Wireless is the third of four courses leading to the Cisco Certified Network Associate (CCNA) designation. CCNA 3 introduces Cisco Networking Academy Program students to the fundamentals of switching. It provides a theoretically-rich, hands on introduction to networking and the Internet.

The primary focus of this course is on LAN switching and wireless LANs. The goal is to develop an understanding of how a switch communicates with other switches and routers in a small- or medium-sized business network to implement VLAN segmentation.

Switching technologies are relatively straightforward to implement; however, as with routing, the underlying protocols and algorithms are often quite complicated. This course will go to great lengths to explain the underlying processes of the common Layer 2 switching technologies. The better the underlying concepts are understood, the easier it is to implement, verify, and troubleshoot the switching technologies.

Each switching concept will be introduced within the context of a single topology for each chapter. The individual chapter topologies will be used to explain protocol operations as well as providing a setting for the implementation of the various switching technologies.

The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure switching operations while reinforcing the concepts learned in each chapter.
I. ACTION TO BE TAKEN: MODIFY AN EXISTING COURSE

Notes:
7. Complete all parts of Sections I and II; complete only those items in Section III that represent changes.
8. If either prefix or number is being changed, use 'Delete Course' and 'Create New Course' forms rather than this form.

a. List the changes to be made (See Proposed Changes a through p below): [No Change]

b. Term Effective (6 digit code only): 201008
Examples: 200801(Spring), 200805(Summer), 200808(Fall)
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. CURRENT: Include information that is in the current course database.

a. Course Prefix b. Number c. Enter Contact Hours per week in boxes.
ECNS 225
LECture [ ] LAB [ ] INDependent Study – Check (x) [ ]
Practicum: [ ] Seminar: [ ]

d. Course Title: Networks 4

III. PROPOSED CHANGES: Complete only those boxes that represent proposed changes identified in Section I. Leave all other spaces blank.

a. Course Prefix b. Number c. Enter Contact Hours per week in boxes.
[ ] [ ]
LECture [ ] LAB [ ] INDependent Study – Check (x) [ ]
Practicum: [ ] Seminar: [ ]

d. Course Title: (Limit to 30 characters/spaces.)

e. College Code: [ ] f. Department Code: [ ]

Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type: [ ] Variable [ ] Fixed
h. Maximum Credit Hours [ ] i. Minimum Credit Hours [ ]

j. May Be Repeated for Added Credit: Check (x) [ ] Yes [ ] No

k. Levels: Check (x) [ ] Undergraduate [ ] Graduate [ ] Professional

l. Grade Method: Check (x) [ ] Normal Grading [ ] Credit/No Credit only (Pass/Fail)

m. CATALOG DESCRIPTION – See Attached Sheet

n. Term(s) Offered: (See instructions for listing.) o. Max. Section Enrollment: [ ]

p. Prerequisites/Co-requisites/Restrictions: Limited to 100 spaces.

[Signature/Date: 2/7/11] [Academic Affairs Approval Signature/Date: 2/12/14]

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
[ ] Basic Skill (BS) [ ] General Education (GE) [ ] Occupational Education (OC) [ ] G.E. Codes

Office of the Registrar use ONLY

Date Rec’d: [ ] Date Completed: [ ] Entered: SCACRSE [ ] SCADTL [ ] SCARRES [ ] SCAPREQ [ ]
m. Catalog Description for ECNS 225

CCNA Exploration Accessing the WAN is the last of four courses leading to the Cisco Certified Network Associate (CCNA) designation. CCNA 4 introduces Cisco Networking Academy Program students to the fundamentals of WAN technologies. It provides a theoretically-rich, hands-on introduction to networking and the Internet.

The primary focus of this course is on accessing wide area networks (WAN). The goal is to develop an understanding of various WAN technologies to connect small- to medium-sized business networks.

The course introduces WAN converged applications and quality of service (QoS). It focuses on WAN technologies including PPP, Frame Relay, and broadband links. WAN security concepts are discussed in detail, including types of threats, how to analyze network vulnerabilities, general methods for mitigating common security threats and types of security appliances and applications. The course then explains the principles of traffic control and access control lists (ACLs) and describes how to implement IP addressing services for an Enterprise network, including how to configure NAT and DHCP. IPv6 addressing concepts are also discussed. During the course, you will learn how to use Cisco Router and Security Device Manager (SDM) to secure a router and implement IP addressing services. Finally, students learn how to detect, troubleshoot and correct common Enterprise network implementation issues.

The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure routing operations while reinforcing the concepts learned in each chapter.