Items approved by Education Council
March 23, 2006

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### Science, Technologies, Health and Social Development

**Network and Telecommunications Engineering Technology Diploma**

**Program Revision**

Changes:
- Addition or deletion of courses
- Resequencing of courses
- Graduation requirements

**Addition, deletion, and changes in sequencing of courses**

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<td>NTEN 111 Computer Components and Peripherals</td>
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<td>NTEN 113 Voice and Data Cabling <em>(2 credits)</em></td>
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<td>NTEN 114 Network Applications and Scripts</td>
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<td>NTEN 127 Local Area Network Management</td>
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<td>NTEN 137 Routing and Switching I</td>
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<td>NTEN 101</td>
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<td>NTEN 102</td>
<td>Co-op Work Term II (May - August)</td>
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<tr>
<td>NTEN 103</td>
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<td>4 months</td>
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</tbody>
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**Accepted Electives for Revised Program**

**Technical Electives (choose 12 credits)**
- NTEN 124 Desktop Applications Programming
- NTEN 214 Database Development
- NTEN 215 Intranet Technologies I
- NTEN 218 Client and Server Security
- NTEN 221 Wireless Networking
- NTEN 222 IP Telephony
- COSC 121 Computer Programming II
- COSC 126 Systems Analysis and Design I
- COSC 131 Visual Programming I
- COSC 211 Machine Architecture
- COSC 304 Introduction to Database Management Systems
- ELEN 216 Programming and Interfacing II
- ELEN 226 Programming and Interfacing III

**Business Administration Electives (choose 6 credits)**
- BUAD 116 Marketing
- BUAD 123 Management Principles
- BUAD 201 Conflict Resolution and Negotiation
- BUAD 232 E-Commerce for Network and Telecommunications Engineering Technology
- BUAD 251 Personal Financial Planning

**Addition of courses:**
- The following existing courses will be added to the program:
  - COSC 111
  - CMNS 113
  - CMNS 123
  - MATH 139
  - COSC 221/MATH 251
- The following are new courses to be added to the program
  - NTEN 218
  - NTEN 221
  - NTEN 222

**Revision of courses:**

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Addition of courses:

The following existing courses will be added to the program:
- COSC 111
- CMNS 113
- CMNS 123
- MATH 139
- COSC 221/MATH 251

The following are new courses to be added to the program:
- NTEN 218
- NTEN 221
- NTEN 222

Revision of courses:
The following courses are being revised to be cross-listed as shown:
- NTEN 111 with ELEN 115
- NTEN 224 with COSC 111
- NTEN 117 with COSC 218
- NTEN 126 with COSC 150

The following courses are being revised:
- NTEN 113
- NTEN 124

**Deletion of courses:**
The following courses are no longer required by the program. They are still in use by other programs and should remain in the calendar.
- MATH 137
- MATH 147
- CMNS 132
- CMNS 142

**Graduation Requirements:**
Currently, graduation requirements are very prescriptive. Twenty-six (26) courses worth 75 credits form the existing diploma and all must be completed for graduation. Note that NTEN 113, COSC 110 and NTEN 199 are 2 credit courses.

The new graduation requirements entail a similar amount of coursework, but allow some flexibility for student-selected electives. The electives are chosen from a small list, but allow customization of the program to better match a student’s interest or aptitude. The proposal is for twenty (20) prescribed courses and six (6) elective courses (see above) totalling 76 credits. Note that NTEN 113 is revised and becomes a 3-credit course. Also, in recognition of areas of expertise and to realize efficiencies of scale, several courses in the existing program are becoming cross-listed.

**Rationale:**
The Network and Telecommunications Engineering Technology diploma prepares students for work in a dynamic field that is constantly advancing. The Program Advisory Committee has mandated that the program maintain an awareness of changes in deployed technologies and adjust curricular content as required. Several of the changes in this revision are designed to remove aged content and incorporate newly developing areas.

Students have often expressed frustration at the rigidity of the program flow and course selection requirements. This revision addresses their concerns by selecting non-core courses and moving them from prescribed to elective. By doing so, the students are able to take prescribed courses from other departments in the College to better satisfy the requisite knowledge of their intended career paths.

In evaluating the program flow, the department noted that some introductory work was being covered fairly late in the program and was not available knowledge at earlier points where it would help understanding of related concepts. This revision alters the flow of content to bring the introductory material forward in the flow.

The restructuring of Okanagan University College into Okanagan College has brought about opportunities for collaboration with other departments that were not as readily available before. The department has worked this year on recognizing these opportunities with both Electronics Engineering Technology and Computer Science. This revision begins the work of accessing these collaborative opportunities.

**Proposed date of implementation:** September 2006

**Cost:** none

**Computer Information Systems Diploma**

**Program Revision**

**Changes:**
- Addition or deletion of courses
• Admission requirements
• Graduation requirements
• Program Description
• Change COSC 218 to COSC 118

Program Calendar Description:
The Computer Information Systems diploma is a two-year program which includes a broad selection of computing, mathematics, business, and professional communication courses so graduates can function successfully in a variety of roles in a business organisation, high-technology company, or government department. These roles include entry-level positions as computer programmer, programmer/analyst, business systems designer/developer/analyst, web designer/developer, network administrator, and database architect/administrator.

The courses in the diploma are grouped into required courses (which all students take), courses from one or more options (an option is a collection of courses dealing with a specific area of computing), and elective courses. This allows students to concentrate on areas of computing which interest them, while ensuring all graduates have a broad knowledge of computing.

The program is available as a co-op program. The department recommends participating in co-op between the third and fourth academic semesters if possible. Taking co-op work-terms will lengthen the program to approximately three years.

(Deleted reference to CIPS accreditation.) Graduates of this program may proceed directly to a Bachelor of Computer Information Systems degree or, after completing some extra courses, to a Bachelor of Business Administration degree. (Deleted reference to COSC 219 and 222.)

Addition of courses
No courses are being added. Instead, alternatives are being proposed.
MATH 139 should be enhanced to “MATH 139 or MATH 137”
CMNS 113 should be enhanced to “CMNS 113 or CMNS 132”
CMNS 123 should be enhanced to “CMNS 123 or CMNS 142”

Admission and Graduation Requirements:
Existing:
Regular Applicants: A regular applicant will have BC High School graduation or equivalent or will be currently completing Grade 12.

English Requirements: A minimum grade of 70% in one of: English 12 or TPC 12 (Technical & Professional Communications 12) or Adult Academic and Career Preparation Provincial Level English, or a minimum score of 30/40 (level 5) on the LPI (Language Proficiency Index). Note: Communications 12 is not acceptable.

Math Requirements: A minimum grade of 70% in one of: Principles of Math 12 or Applications of Math 12, or a minimum grade of 60% in Okanagan College Math 120, or a minimum grade of 65% on the Math 12 challenge exam administered by Okanagan College. Note: The math requirement must have been completed not more than 15 years prior to enrolment in the program.

Computer Studies Requirements: A minimum grade of 79% (the equivalent letter grade is B) in Information Technology 12, or a minimum grade of 64% in Okanagan College COSC122, or a minimum grade of 79% (the equivalent letter grade is B) in Computer Studies 11, or a minimum grade of 72% (the equivalent letter grade is C+) in Computer Science 12, or passing a computer competency exam administered by the Computer Science Department of Okanagan College. Note: The computer studies course requirement must have been completed no more than seven years prior to enrolment in the program. A computer competency exam is available for mature applicants.

Mature Applicants:
Applications who do not have high school graduation may apply as a mature student provided that they are at least 19 years of age and have not attended secondary school on a full-time basis for a minimum period of one year.

Mature applicants will be subject to the same course entrance requirements that apply to regular applicants.

Mature applicants may satisfy the Computer Studies requirements by writing a computer competency exam administered by the Computer Science Department.

Keyboarding Skills: Keyboarding skills of at least 20 wpm are strongly recommended.

Access to a Personal Computer: Students entering this program are strongly advised to have access to a personal computer at home with Internet access, both with adequate resources for this level of study. Students may consult the Computer Science Department or the Computer Information Systems Course Union for hardware and software recommendations.

Personal Suitability: The Computer Programmer's Aptitude Battery is offered occasionally throughout the year. It is recommended for prospective applicants seeking advice on their suitability for the program. Contact the Chair of the Computer Science Department for more information.

Proposed:
As above with the following changes.

English Requirements: A minimum grade of 60% in one of: English 12 or TPC 12 (Technical and Professional Communications 12) or an equivalent Provincial Level Adult Basic Education English, or a minimum score of 24/40 (level four) on the LPI (Language Proficiency Index).

Note: Communications 12 is not acceptable.

Mathematics Requirements: A minimum grade of 67% in Principles of Mathematics 11 or equivalent Advanced Level ABE mathematics; or a minimum grade of 60% in Principles of Mathematics 12 or Applications of Mathematics 12, or an equivalent Provincial Level ABE mathematics; or a minimum grade of 60% in Okanagan College MATH 120; or a minimum grade of 64% on the Mathematics 11 challenge exam administered by Okanagan College.

Principles of Mathematics 12 or Applications of Mathematics 12 are recommended. (Deleted - Note: The Math requirement must have been completed not more than 15 years prior to enrolment in the program.)

Computer Studies Requirements: A minimum grade of 70% in ICTS 11 (Computer Information Systems) or ICTP 11 (Computer Programming), or a minimum grade of 60% in ICTS 12 (Computer Information Systems) or ICTP 12 (Computer Programming), or a minimum grade of 73% in Information Technology 12, or a minimum grade of 64% in Okanagan College COSC122, or a minimum grade of 79% in Computer Studies 11, or a minimum grade of 72% in Computer Science 12, or a minimum grade of 60% in a computer competency exam administered by the Computer Science Department of Okanagan College. (Deleted - Note: The computer studies course requirement must have been completed no more than seven years prior to enrolment in the program.)

Rationale:
Admission – recognize new high school computing courses.
Course changes - Allow students more flexibility through providing common courses between NTEN and CIS.

Proposed date of implementation: April 2006

Cost: none

Bachelor of Computer Information Systems
Program Revision
Changes:

- Admission requirements
- Change COSC 218 to COSC 118

Admission Requirements:
Modify entrance requirements to match those for CIS diploma.
English Requirements: A minimum grade of 60% in one of: English 12 or TPC 12 (Technical and Professional Communications 12) or an equivalent Provincial Level Adult Basic Education English, or a minimum score of 24/40 (level four) on the LPI (Language Proficiency Index). Note: Communications 12 is not acceptable.

Mathematics Requirements: A minimum grade of 67% in Principles of Mathematics 11 or equivalent Advanced Level ABE mathematics; or a minimum grade of 60% in Principles of Mathematics 12 or Applications of Mathematics 12, or an equivalent Provincial Level ABE mathematics; or a minimum grade of 60% in Okanagan College MATH 120; or a minimum grade of 64% on the Mathematics 11 challenge exam administered by Okanagan College. Principles of Mathematics 12 or Applications of Mathematics 12 are recommended. (Deleted - Note: The Math requirement must have been completed not more than 15 years prior to enrolment in the program.)

Computer Studies Requirements: A minimum grade of 70% in ICTS 11 (Computer Information Systems) or ICTP 11 (Computer Programming), or a minimum grade of 60% in ICTS 12 (Computer Information Systems) or ICTP 12 (Computer Programming), or a minimum grade of 73% in Information Technology 12, or a minimum grade of 64% in Okanagan College COSC122, or a minimum grade of 79% in Computer Studies 11, or a minimum grade of 72% in Computer Science 12, or a minimum grade of 60% in a computer competency exam administered by the Computer Science Department of Okanagan College. (Deleted - Note: The computer studies course requirement must have been completed no more than seven years prior to enrolment in the program.)

Rationale:
Provide consistency with Computer Information Systems diploma program, which ladders into this degree.

Proposed date of implementation: September 2006
Costs: none

ELEN 115-3-5.5 Computer Components & Peripherals
Course Revision
Changes:
- Course Description
- Contact hours changed from 2 hour to 2.5 hour lab
- Cross list with NTEN 111

Course Calendar Description:
This course is an introduction to the technologies and terminologies of PC computer and Operating Systems. Computer components and their interactions are examined as well as the configuration and management of a workstation operating system. Special emphasis is given to PC components, peripheral data storage, disk management, file systems, boot process, operating system configuration and basic scripting. Students with credit for NTEN 111 cannot take ELEN 115 for further credit. This course is also given in the Department of Network and Telecommunications Engineering Technology as NTEN 111. (3.2.5.0)

Rationale: The rationale for the revision is to clarify the content of the course and to cross-list it with NTEN 111.

Proposed date of implementation: September 2006
Cost: none

NTEN 111-3-5.5 Computer Components and Peripherals
Course Revision
Changes
- Course Description
- Cross list with ELEN 115

Course Calendar Description:
This course is an introduction to the technologies and terminologies of PC computer and Operating Systems. Computer components and their interactions are examined as well as the configuration and management of a workstation operating system. Special emphasis is given to pc components, peripheral data storage, disk management, file systems, boot process, operating system configuration and basic scripting. Students with credit for ELEN 115 cannot take NTEN111 for further credit. This course is also given in the Department of Electronic Engineering Technology as ELEN 115. (3,2,5,0)

**Rationale:** The rationale for the revision is to clarify the content of the course. Cross listed with ELEN 115.

**Proposed date of Implementation:** September 2006

**Cost:** None

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**COSC 111-3-5 Computer Programming 1**

**Course Revision**

**Changes:**

- Prerequisites
- Course description
- Cross list with NTEN 112

**Course Calendar Description:**

This course is an introduction to the design, implementation, and understanding of computer programs. Topics include problem solving, algorithm design, and abstraction, with the emphasis on the development of working programs. This course should be followed by COSC 121, Computer Programming II. Students with credit for NTEN 112 or NTEN 224 cannot take COSC 111 for further credit. This course is also given in the Department of Network and Telecommunications Engineering as NTEN 112. (3,2,0)

**Prerequisites:** A minimum grade of 67% in Principles of Mathematics 11 or an equivalent Advanced Level ABE mathematics, a minimum grade of 60% in Principles of Mathematics 12 or Applications of Mathematics 12 or an equivalent Provincial level ABE mathematics, or a minimum grade of 60% in Okanagan College MATH 120, or a minimum grade of 64% on the Mathematics 11 challenge exam administered by Okanagan College. Principles of Mathematics 12 or Applications of Mathematics 12 are recommended.

**Rationale:** The rationale for the revision is to clarify the content of the course and to cross-list it with NTEN 224. Prerequisites are modified to match those for the CIS and NTEN diplomas.

**Proposed date of implementation:** September 2006

**Cost:** None

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**NTEN 224-3-5.5 Computer Programming 1**

**Course Revision**

**Change:**

- Course Description
- Change course code to NTEN 112
- Contact hours changed from 2.5 hour to 2 hour lab
- Cross list with COSC 111 and change course number to NTEN 112

**Course Calendar Description:**

NTEN 112-3-5
(formerly NTEN 224)

This course is an introduction to the design, implementation and understanding of computer programs. Topics include problem solving, algorithm design, and data and procedural extraction with the emphasis on the development of working programs. Students with credit for COSC 111 cannot take NTEN 112 or NTEN 224 for further credit. This course is also given in the Department of Computer Science as COSC 111. (3,2,0)

**Rationale:** The rationale for the revision is to clarify the content of the course and to cross-list it with COSC 111.

**Proposed date of implementation:** September 2006

**Cost:** None
NTEN 126-3-5.5  Basic Digital Circuits and Microprocessors

Course Revisions
Change:
- Corequisites
- Course Description
- Cross list with COSC 150

Course Calendar Description:
This course is an introduction to digital systems, number systems, logic circuits and operations, flipflops, counters, registers, and microprocessors. A brief introduction to assembly language programming is included, culminating with a simple project. Students with credit for COSC 124 or COSC 150 cannot take NTEN 126 for further credit. This course is also given in the Department of Computer Science as COSC 150. (3,2,5,0)

Corequisites: COSC 111 or NTEN 112

Rationale: Provide cross-listing

Proposed date of implementation: September 2006

Cost: none

COSC 150-3-5 Digital Logic and Microcomputer Hardware

Course Revision:
Change:
- Corequisites
- Course Description
- Change title to Basic Digital Circuits and Microprocessors
- Contact hours changed from 2 hour to 2.5 hour lab
- Cross list with NTEN 126

Course Calendar Description:
COSC 150-3-5.5  Basic Digital Circuits and Microprocessors
This course is an introduction to digital systems, number systems, logic circuits and operations, flipflops, counters, registers, and microprocessors. A brief introduction to assembly language programming is included, culminating with a simple project. Students with credit for COSC 124 or NTEN 126 cannot take COSC 150 for further credit. This course is also given in the Department of Network and Telecommunications Technology as NTEN 126. (3,2,5,0)

Rationale: Clarify content and provide cross-listing

Proposed date of implementation: September 2006

Cost: none

COSC 218-3-5  Computer Networks and Telecommunications I

Course Revision:
- Course Description
- Change course code to COSC 118
- Contact hours changed from 2 hours to 2.5 hour lab
- Cross list with NTEN 117 and change course number and change course number in prerequisite statement of 3 other courses

Course Calendar Description:
COSC 118-3-5.5  (formerly COSC 218)
This course introduces the theory and practice of modern telecommunications with an emphasis on the TCP/IP (Transmission Control Protocol/Internet Protocol) stack. Students will learn to install and troubleshoot the electronic components necessary for telephony and data communications. Students with credit for NTEN 117 or COSC 218 cannot take COSC 118 for
further credit. This course is also given in the Department of Network and Telecommunication Engineering as NTEN 117. (3,2,5,0)

**Prerequisite:** Admission to ELEN, NTEN, or CIS diploma or BCIS degree program

**Rationale:** The rationale for the revision is to clarify the content of the course and to cross-list it with NTEN 117.

**Proposed date of implementation:** September 2006

**Cost:** none

### NTEN 117-3-5.5 Networks and Telecommunications 1

**Course Revision**

**Changes**

- Course Description
- Cross list with COSC 118

**Course Calendar Description:**

This course introduces the theory and practice of modern telecommunications with an emphasis on the TCP/IP (Transmission Control Protocol/Internet Protocol) stack. Students will learn to install and troubleshoot the electronic components necessary for telephony and data communications. Students with credit for COSC 118 or COSC 218 cannot take NTEN 117 for further credit. This course is also given in the Department of Computer Science as COSC 118. (3,2,5,0)

**Prerequisite:** Admission to ELEN, NTEN, or CIS diploma, or BCIS degree, or Associate of Science program.

**Rationale:** The rationale for the revision is to clarify the content of the course and to cross-list it with COSC 118.

**Proposed date of implementation:** September 2006

**Cost:** none

### ELEN 216-3-6 Programming and Interfacing II

**Course Revision**

**Changes**

- Prerequisites

**Course Calendar Description:**

This course deals with the architecture, programming, and interfacing of microcontrollers. Hardware topics include memory, input/output, counters/timers, serial communications and interrupts. Interface projects will be written in Assembly and C and include switches, LED’s (Light Emitting Diodes), A/D (Analog to Digital) converters, stepper motors, and liquid crystal displays. (3,3,0)

**Prerequisites:** ELEN 126 or NTEN 126 or COSC 150

**Rationale:** Add NTEN 126 or COSC 150 as possible prerequisites to allow NTEN or CIS students to take ELEN 216 as an elective.

**Proposed date of implementation:** September 2006

**Cost:** none

### COSC 219-3-5 Software III

**Course Revisions**

**Changes**

- Course Title change to Client-side Web Systems
- Course Description

**Course Calendar Description:**

**COSC 219-3-5 Client-side Web Systems**

This course is an introduction to content creation for the web, focusing on technologies for the client. (3,2,0)

**Prerequisite:** Minimum of 60% in COSC 121
Rationale: To make the course description more accurately reflect the course content.
Proposed date of implementation: September 2006
Cost: none

COSC 236-3-5   Systems Analysis and Design II
Course Revisions
- Course Title change to Object-Oriented Systems Analysis and Design

Course Calendar Description:
COSC 236-3-5   Object-Oriented Systems Analysis and Design
Rationale: Clarify content
Proposed date of implementation: June 2006
Cost: none

COSC 360-3-4   Online Document Systems
Course Revisions
- Course title to Server-side Web Systems
- Contact hours changed from 1 hour to 2 hour lab
- Course description

Course Calendar Description:
COSC 360-3-5   Server-side Web Systems
This course covers the design, implementation and administration of network-based distributed information systems. Practical topics and related labs treat server implementations on public systems, including World Wide Web, CGI scripting, automated search engines, and the Java language. Audio/Visual aids are included. (3,2,0)
Prerequisites: no change
Rationale: Clarify content, allow students more lab time
Proposed date of implementation: June 2006
Cost: none

COSC 416-3-5   Special topics in Database
Course Revisions
- Course Title change to Topics in Database

Course Calendar Description:
COSC 416-3-5   Topics in Database
Rationale: Consistency with other Computer Science “topics” courses.
Proposed date of implementation: June 2006
Cost: none

NTEN113-2-4   Voice and Data Cabling
Course Revisions
- Content
- Course Title change to Voice & Data Communications Infrastructure
- Course Description
- Contact hours changed from 3 hour to 2 hour lab
- Credit changed from 2 to 3 credits

Course Calendar Description:
NTEN 113-3-5   Voice & Data Communications Infrastructure
Focusing on the physical connectivity elements of voice and data networks, this course provides an understanding of worldwide cabling standards, physical media, methods of troubleshooting, network documentation, cable management, fundamentals of telephony, and workplace safety.
In the lab, students will create a voice and data network infrastructure, including key telephone
switching equipment. (3,2,0)
**Rationale:** Feedback from instructor evaluations has shown that students would like to have
more time to expand upon the material in this course. Adding an extra lecture section will allow
more time to be spent on fundamental telephony concepts, which will give students a stronger
foundation for NTEn227, and make them more employable in the telecommunications job market.
**Proposed date of implementation:** January 2007
**Cost:** none

**NTEN 124-3-5 Desktop Application Programming**

**Course Revisions**
- Prerequisites

**Course Calendar Description:** No change

**Prerequisite:** none

**Rationale:** Previously, NTEN 114 was set as a prerequisite course. As the skills of incoming
students have improved, the need to establish sufficient base skills has decreased and the role of
NTEN 114 has diminished. The NTEN 114 course is being replaced by other coursework in the
diploma program. This coursework includes COSC 111, which will be the new prerequisite
course.

**Proposed date of implementation:** January 2007

**Cost:** No additional fees above the current NTEn materials fee.

**New Courses:**

**NTEN 218-3-5 Client and Server Security**

**Course Calendar Description:** In this course students learn the fundamentals of network and
system security and gain insight into the issues behind securing a network and system on the
Internet. Students will develop a framework for an enterprise security policy and learn to install,
configure and maintain applications to enforce this security policy. This course provides a
comprehensive overview of security technologies and best practices with particular emphasis on
hands-on skills in the following areas: Firewalls, Client and Server security, Antivirus and Malware
protection, products, setup and troubleshooting. (3,2.5,0)

**Prerequisites:** NTEN 111 and NTEN 127

**Rationale:** The Network and Telecommunications Engineering Technology diploma prepares
students for work in a dynamic field that is constantly advancing. The Program Advisory
Committee has mandated that the program maintain an awareness of changes in deployed
technologies and adjust curricular content as required. This course addition is designed to
address the security issues for workstations and servers in a networked environment and
connected to the Internet.

**Proposed date of implementation:** January 2007

**Cost:** None

**NTEN 221-3-5.5 Fundamentals of Wireless Networking**

**Course Calendar Description:** This introductory course focuses on the design, planning,
implementation, operation and troubleshooting of Wireless LANs (Local Area Networks) and
WANs (Wide Area Networks). It covers a comprehensive overview of technologies, security, and
design best practices with particular emphasis on hands on skills in the following areas: Wireless
LAN technologies, products, setup and troubleshooting, Radio technologies, WLAN applications,
security and site surveys and emerging wireless technologies. (3,2.5,0)

**Prerequisite:** NTEN 117

**Corequisite:** NTEN 137

**Rationale:**
The Network and Telecommunications Engineering Technology diploma prepares students for work in a dynamic field that is constantly advancing. The Program Advisory Committee has mandated that the program maintain an awareness of changes in deployed technologies and adjust curricular content as required. This course addition is designed to incorporate the newly developing area of Wireless networking.

**Proposed date of implementation:** January 2007

**Cost:** None

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**NTEN 222-3-5.5  IP Telephony**

**Course Calendar Description:**

IP (Internet Protocol) Telephony provides an introduction to converged voice and data networks as well as the challenges faced by its various technologies. The course presents solutions and implementations to address those challenges. Students work with both vendor and open source call manager architectures and components and apply both Voice-Over-IP and Quality of Service technologies. (3,2.5,0)

**Prerequisites:** NTEN 217

**Rationale:**

The Network and Telecommunications Engineering Technology diploma prepares students for work in a dynamic field that is constantly advancing. The Program Advisory Committee has mandated that the program maintain an awareness of changes in deployed technologies and adjust curricular content as required. This course addition is designed to incorporate the newly developing area of IP Telephony.

**Proposed date of implementation:** January 2007

**Cost:** None

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**Math 139-3-4  Mathematics for Computer Information Systems**

**Course Changes**

- Course Title change to Mathematics for Information Technology

**Course Calendar Description:**

This course includes a review of algebra, logic, linear algebra with application to computer graphics, an introduction to set theory, counting and probability. (4,0,0)

**Prerequisites:** Admission to Computer Information Systems or Networking and Telecommunications Engineering diploma program

**Rationale:** To allow both NTEN and CIS students to take the course.

**Proposed date of implementation:** September 2006

**Cost:** None

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**Course Deletions**

**NTEN 114-3-5.5  Network Application and Scripts**

**Rationale:** The department regularly reviews course contents for currency and industry relevance. As part of the current restructuring, it was determined that portions of this course were out of date while other parts could be better taught in conjunction with material in other courses. To make space for the addition of newer material, this course was elected for deletion.