MAR 24 1994

LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____

replaced 11/11/94

UWUCC USE Only
Number: ~~93-85~~ 94-35
Submission Date: App 11/29/94
Action-Date: ~~Senate App 2/7/95~~

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Linda Szul/Sharon Steigmann Phone 3003

Department Office Systems & Business Education

II. PROPOSAL TYPE (Check All Appropriate Lines)

_____ **COURSE** _____
Suggested 20 character title

____ New Course* _____
Course Number and Full Title

__X__ Course Revision OS 400 Telecommunications
Course Number and Full Title

____ Liberal Studies Approval+ for new or existing course _____
Course Number and Full Title

____ Course Deletion _____
Course Number and Full Title

____ Number and/or Title Change _____
Old Number and/or Full Old Title

_____
New Number and/or Full New Title

____ Course or Catalog Description Change _____
Course Number and Full Title

_____ **PROGRAM:** _____ Major _____ Minor _____ Track

____ New Program* _____
Program Name

____ Program Revision* _____
Program Name

____ Program Deletion* _____
Program Name

____ Title Change _____
Old Program Name

_____
New Program Name

III. Approvals (signatures and date)

Linda Szul 2-21-94
Department Curriculum Committee

[signature] 2/21/94
Department Chair

[signature]
College Curriculum Committee

[signature] 3/24/94
College Dean

_____
+Director of Liberal Studies (where applicable)

_____
*Provost (where applicable)

PART II

DESCRIPTION OF CURRICULUM CHANGE

Currently on p. 173 of 94-95 catalog as requirement for all OS 300 &/or 400 level courses. This is not a change.

Note: All courses at the 300 and 400 level are open only to students with junior or senior standing. All students, regardless of major or program affiliation, must meet course prerequisite requirements in order to enroll for a given course.

1. New syllabus of record: see attached

2. Old Title & Number: OS 400 Telecommunications
   Old Prerequisite: Junior Standing.

   New Title & Number: OS 400 Telecommunications
   New Prerequisite: BE/CO/IM 101

3. Justification

Knowledge of the material is essential for the mastery of course content.

4. Old syllabus of record: see attached

NEW SYLLABUS OF RECORD

0S400 TELECOMMUNICATIONS

Catalog Description

Knowledge and concepts of telecommunications technology, applications, and management as they apply to office systems. Prerequisite: BE/CO/IM101

Course Objectives

Upon successful completion of this course, students will understand the:
-evolution of telecommunications and its future implications.
-transmission and reception processes in telecommunications.
-hardware and software used in a data communication system.
-network configurations and their management.
-role of the public telephone system and other public carriers.

Course Outline

A. Telecommunications Overview (2 hrs.)
   1. Evolution
   2. Technologies
   3. Major issues in the industry
   4. Changing role of the telecommunications manager

B. Transmission Fundamentals (4 hrs.)
   1. Voice transmission principles
   2. Signal conversion
   3. Transmission rates, channels, modes
   4. Transmission media and impairments
   5. Codes, circuits and protocols

C. Telephone Basics (3 hrs.)
   1. Telephone components
   2. Basic telephone operations
   3. Exchange services
   4. Telecommunications network

D. Public Telephone System (3 hrs.)
   1. Public Switched Telephone Network (PSTN)
   2. Local Access and Transport Areas (LATAs) or Market Service Areas (MSAs)
   3. Long-distance carriers and services
   4. Private lines

E. Business Telephone Systems (2 hrs.)
   1. Interconnect Industry
   2. Key Telephone Systems
   3. Private Branch Exchanges (PBX)
   4. Centrex services

F. Communications Networks (4 hrs.)

1. Technology and standards
2. Classification by topology, ownership, purpose and geography
3. Alternatives to LANs
4. Design and Implementation

G. Data Communications Hardware and Software (3 hrs.)
1. Data terminals
2. Modems/DOVs
3. Software packages

H. Microwave and Satellite Communications (3 hrs.)
1. Microwave relay
2. Satellite communications
3. Teleports

I. Electronic Mail (3 hrs.)
1. Telex
2. Computer-Based Messaging Systems (CBMS)
3. Electronic mail standards
4. Electronic Data Interchange (EDI)
5. IUP's Mail System
6. User Manuals/Procedures

J. Voice Processing (3 hrs.)
1. Technology
2. Functions and applications
3. Systems

K. Facsimile (1 1/2 hrs.)
1. Technology and standards
2. Equipment features
3. Public facsimile services
4. Applications

L. Videotex and Teletext (1 1/2 hrs.)

M. Teleconferencing (3 hrs.)
1. Audio conferencing and audiographics
2. Two-way videoconferencing
3. Business television
4. Computer conferencing
5. Planning, conducting, and evaluating

N. Mobile Communications (3 hrs.)
1. Services
2. Radio paging
3. Two-way radio
4. Mobile telephone service

O. Telecommunications Management (2 hrs.)
   1. Need
   2. Responsibilities
   3. Security
   4. Issues

P. Future Directions in Telecommunications (1 hr.)

***Note: Hours devoted to topics will vary depending upon the advances in technology.**

Teaching Method: This course will be taught using lecture, hands-on Internet, case studies, videos, readings, guest speakers and special projects. Homework assignments are due during or before the class period for which they are assigned. No late assignments will be accepted without previous agreement.

Many of the homework assignments will require use of a computer with a modem to log in to IUP's mainframe. If you do not have one at home, you should anticipate spending additional out-of-class time in the lab to do assignments.

Required texts and materials:

Mitchell, William, Robert Hendricks, and Leonard Sterry. Telecommunications: Systems and Applications. (St. Paul, MN: Paradigm Publishing, 1993).

Copies Now materials, including EFF's Guide to the Internet.

A number of 3.5" diskettes, pencil/pen and notebook are the only additional supplies needed for the class.

Grading:

Three exams	60%
Homework	20%
Case Studies and Participation	20%

(90-100% = A; 80-89% =B; 70-79% = C; 60-69% = D; Below = F)

OLD SYLLABUS OF RECORD

0S400 TELECOMMUNICATIONS

Catalog Description

Knowledge and concepts of telecommunications technology, applications, and management as they apply to office systems. Prerequisites: junior status. (3 credits--**Writing intensive course**)

Course Objectives

Upon successful completion of this course, students will understand the:
-evolution of telecommunications and its future implications.
-transmission and reception processes in telecommunications.
-hardware and software used in a data communication system.
-network configurations and their management.
-role of the public telephone system and other public carriers.

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A. Telecommunications Overview
   1. Evolution
   2. Technologies
   3. Major issues in the industry
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   1. Voice transmission principles
   2. Signal conversion
   3. Transmission rates, channels, modes
   4. Transmission media and impairments
   5. Codes, circuits and protocols

C. Telephone Basics
   1. Telephone components
   2. Basic telephone operations
   3. Exchange services
   4. Telecommunications network

D. Public Telephone System
   1. Public Switched Telephone Network (PSTN)
   2. Local Access and Transport Areas (LATAs) or Market Service Areas (MSAs)
   3. Long-distance carriers and services
   4. Private lines

E. Business Telephone Systems
   1. Interconnect Industry
   2. Key Telephone Systems
   3. Private Branch Exchanges (PBX)
   4. Centrex services

F. Communications Networks
   1. Technology and standards
   2. Classification by topology, ownership, purpose and geography
   3. Alternatives to LANs
   4. Design and Implementation

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   1. Data terminals
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Krol, Ed. The Whole Internet: User's Guide & Catalog. (Sebastopolm CA: O'Reilly & Associates, 1992).

A number of 3.5" diskettes, pencil/pen and notebook are the only additional supplies needed for the class.

Grading:

Three exams	60%
Homework	20%
Case Studies and Participation	20%