LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		02-81b	App-4/15/03	App 4/29/03

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person LeAnn Wilkie	Email Address Wilkie@iup.edu
Proposing Department/Unit Technology Support & Training	Phone 357-3003

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply)

_____New Course _____Course Prefix Change _____Course Deletion

__X__Course Revision __X__Course Number and/or Title Change __X__Catalog Description Change

BTST 313 Office Systems Technologies	**BTST 273 Hardware Support Solutions**
***Current** Course prefix, number and full title*	***Proposed** course prefix, number and full title, if changing*

2. Additional Course Designations: check if appropriate

_____ This course is also proposed as a Liberal Studies Course.

_____ This course is also proposed as an Honors College Course.

_____ Other: (e.g., Women's Studies, Pan-African)

3. Program Proposals

_____Catalog Description Change _____Program Revision

_____New Degree Program _____Program Title Change _____Other

_____New Minor Program _____New Track

***Current** program name*	***Proposed** program name, if changing*

4. Approvals		**Date**
Department Curriculum Committee Chair(s)	LeAnn Wilkie	2-14-03
Department Chair(s)	Linda Lyst	2-19-03
College Curriculum Committee Chair	Judith Warner	2-20-03
College Dean	R Cann	2/20/03
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	Gail S. Sechrist	4/15/03

* where applicable

Course Revision: BTST 273 Hardware Support Solutions

Part II. Description of Curriculum Change

1. Syllabus of Record.

   The new syllabus of record for this revised course is attached in Appendix A.

2. Summary of proposed revisions:

   a. Course title was changed to reflect the program's shift away from traditional office technologies.

   b. Course description has changed. Reprographics was taken out of the catalog description in keeping with the shift away from office technologies and due to the fact that this specific technology has not been covered in several years.

      Old Course Description:

      The emphasis will be on systems hardware, especially the microcomputer. Concepts and design principles common to all microprocessors are studied. Auxiliary hardware, such as reprographics, printers, modems, scanners and laser technology will be included.

      New Course Description:

      The emphasis will be on systems hardware, especially the microcomputer. Concepts and design principles common to all microprocessors are studied. Auxiliary hardware such as printers, modems, scanners and laser technology will be included. Basic network technology concepts and peer-to-peer network configuration, maintenance and troubleshooting will also be included.

   c. Course objectives were modified to include cabling and peer to peer networking activities and troubleshooting methods so that students are better prepared for the related courses such as BTST 310 (Telecommunications) and IFMG352 (LAN Design & Installation).

   d. Evaluation methods were changed. The focus of the course is hands-on experience and troubleshooting of computer systems; therefore, the evaluation methods were modified somewhat to reflect a greater emphasis on hands-on activities and projects rather than tests.

e. The bibliography has been updated to reflect ever-changing technological change.

3. Justification/ Rationale for revisions:
   a. The decision to change the course number to 273 comes as a result of significant revisions and a course number change to Microcomputer Software Solutions (formerly BTST 283; proposed to change to BTST 383). Because the changes to Microcomputer Software Solutions reflect a higher level of knowledge in terms of software maintenance and troubleshooting, and because of the need to provide a 200-level course serving the Technology Support and Training (TST) program, the Bachelor of Science in Education – Business Education program , and the two-year Associate program in Computer Office and Information Systems (COIS), it was felt that Hardware Support Solutions better served the needs of students from all majors to provide exposure to both computer hardware and software.

   b. Moderate revisions were made to course content so that it more effectively fits in with TST, Business Education, and COIS programs of study.

4. Old Syllabus of Record

   The old syllabus of record is attached in Appendix B.

5. Liberal Studies course approval.

   These changes do not affect the Liberal Studies requirements.

Part III. Letters of Support or Acknowledgment

See letter of support from MIS (p. 11).

Appendix A: New Syllabus of Record

BTST 273 Hardware Support Solutions **3 class hours**
0 lab hours
3 credits
(3c-0l-3cr)

Prerequisite: BTED/COSC/IFMG101

I. Catalog Description

The emphasis will be on systems hardware, especially the microcomputer. Concepts and design principles common to all microprocessors are studied. Auxiliary hardware such as printers, modems, scanners and laser technology will be included. Basic network technology concepts and peer-to-peer network configuration, maintenance and troubleshooting will also be included.

II. Course Objectives

At the conclusion of this course, the student should be able to:

1. Identify and understand personal computer hardware and server hardware from a conceptual and end-user point of view.

2. Troubleshoot and maintain personal computer and server hardware.

3. Evaluate and select computer hardware components, peripherals and systems and make recommendations for the integration of computer technology into a business environment.

4. Understand basic network technology, architecture and protocols.

5. Install network components including cards, cables, hubs, and switches.

6. Configure a basic peer-to-peer network to interconnect the computing resources of an organization.

7. Manage and troubleshoot a peer-to-peer network.

III. Course Outline

a. Computer hardware and software

i. Conceptual and end-user point of view — 15 hours

a. System Board
b. Memory
c. Floppy disk drives
d. Hard disk drives
e. Troubleshooting: principles and approaches
f. Input/output devices and auxiliary hardware
g. Multimedia components
h. Electricity and power supplies
i. Operating systems

2. Troubleshooting and maintenance — 14 hours
   a. System Board
   b. Memory
   c. Floppy disk drives
   d. Hard drive installation and support
   e. Troubleshooting
   f. Input/output devices and auxiliary hardware
   g. Electricity and power supplies
   h. Operating systems

Midterm Exam — 1 hour

3. Group Project: Evaluate, select and recommend hardware components, peripherals and systems for the integration of computer technology into a business environment — 3 hours

B. Peer-to-peer networking

1. Basic network technology, architecture and protocols — 1 hour
2. Network component installation — 3 hours
3. Configure a basic peer-to-peer network — 2 hours
4. Manage and troubleshoot a peer-to-peer network — 3 hours

Final Exam: During Final Exam Week — 2 hours

Total: — 44 hours

IV. Evaluation Methods

Percentages

Two exams and quizzes	35%
Research papers and outside assignments	15%
Hands-on computer assignments and projects	30%
Group project and oral presentation	15%
Participation	5%
Total	100%

The final grade will be determined as follows:

(35%) - Tests and quizzes – Tests (20%) and quizzes (15%) will consist of multiple choice, short answer and/or essay questions.

(15%) - Research papers and outside assignments – Two research papers are required so that students become familiar with current issues and trends in technology support and related areas. Outside assignments include Internet research topics such as issues pertaining to hardware components and new hardware-related technologies.
(30%) - Hands-on computer assignments and projects - A variety of hands-on computer assignments will be given for completion during and/or outside of class time. Some hands-on computer assignments require dyadic or group collaboration.

(15%) - Group project and oral presentation – one group project and oral presentation will consist of case-based evaluation, selection and recommendation of hardware components, peripherals and systems for the integration of computer technology into a business environment.

(5%) - Participation – students will be expected to participate in class discussions and hands-on computer assignments and projects.

Grading Scale:

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = 59% and below

V. Attendance Policy

University policy expects all students to attend class. Three unexcused absences will be permitted during the semester. Excused absences must be submitted immediately upon return to class. Unexcused absences in excess of three will result in a full letter grade reduction from your final grade. In addition, missing an exam or hands-on evaluation activity without prior approval will result in a zero for that activity.

VI. Required Textbooks, Supplemental Readings

Mueller, S. (2003). *Upgrading and repairing pcs, academic edition* (14th ed.) Indianapolis, IN: Que Publishing.

Dean, T. (latest edition). *Network+ guide to networks.* Cambridge, MA: Course Technology.

Supplemental computer lab assignments (supplied by instructor)

VII. Bibliography

Andrews, J. (2001). *A+ guide to managing and maintaining your PC* (3rd ed.). Cambridge, MA: Course Technology.

Andrews, J. (2000). *A+ guide to managing and maintaining your pc* (2nd ed.). Cambridge, MA: Course Technology.

Networking essentials (2nd ed.). (1999). Redmond, WA: Microsoft Press.

Dean, T. (2001). *Network+ guide to networks* (2nd ed.). Cambridge, MA: Course Technology.

Dulaney, E. & Bogue, R. (2000). *A+ certification.* Upper Saddle River, NJ: Prentice Hall.

Brooks, C. (1999). *A+ certification concepts & practice* (2nd ed.). Indianapolis, IN: Que Education and Training.

A+ certification: PC operating systems. (1999). Phoenix, AZ: ComputerPrep, Inc.

A+ certification: PC hardware. (1999). Phoenix, AZ: ComputerPrep, Inc.

Appendix B: Old Syllabus of Record

I. Catalog Description

BTST 313 Office Systems Technologies

3 credits
3 lecture hours
(3c—01—3sh)

Prerequisite: Junior Standing

The emphasis will be on systems hardware, especially the microcomputer. Concepts and design principles common to all microprocessors are studied. Auxiliary hardware, such as reprographics, printers, modems, scanners and laser technology will be included.

II. Course Objectives

1. Students will become familiar with office systems hardware from a conceptual and user point of view.

2. Students will be able to make recommendations on how to upgrade office systems hardware.

3. Students will examine ways to troubleshoot and maintain office systems hardware.

4. Students will learn techniques for evaluating and selecting office systems hardware.

III. Course Outline

A. Introduction To PC Hardware (2 Lectures)
   1. The Microprocessor
   2. ROM
   3. RAM

B. PC/XT, PC/AT, 386 and 486 Class Differences (3 Lectures)

C. Hardware Overview (5 Lectures)
   1. Outside of the PC
      (a) Case differences
      (b) System unit
      (c) Keyboards
      (d) Monitors

2. Inside of the PC
   (a) Disk drives
   (b) Power supply
   (c) Motherboard
   (d) Expansion cards
   (e) Miscellaneous parts

D. Memory (3 Lectures)
1. Internal
2. External
3. Upgrading
   (a) Software
   (b) Hardware

E. Floppy-disk Drives (2 Lectures)
1. Drive unit
2. Controller card
3. Cable
4. Installing
5. Upgrading

F. Hard—disk Drives (2 Lectures)
1. Removing/Installing
2. Preventive maintenance
3. Upgrading

G. Expansion Cards (2 Lectures)
1. Types
2. Upgrading
3. Installing

H. Power Supply (1 Lecture)

I. Monitors and Display Adapters (2 Lectures)
1. Types of Monitors/Adapters
2. Specifications
3. Upgrading

J. Printers (3 Lectures)
1. Types
2. Components
3. Interface

K. Making a PC Faster and More Efficient (2 Lectures)

L. Troubleshooting and Maintaining Office Systems Hardware (3 Lectures)

M. Auxiliary Hardware (3 Lectures)
   1. Scanners
   2. Modems
   3. Reprographics

N. Local Area Networking (4 Lectures)
   1. Basics
   2. Security
   3. Multi-Server Environment

O. Feasability Studies (3 Lectures)
   1. Purposes
   2. Approaches
   3. Process
   4. Reports

IV. Evaluation Methods

The final grade for the course will be determined as follows:

60% Tests. Three tests consisting of objective and problem solving questions.

20% Case studies and participation.

20% Project——includes an oral presentation.

V. Required Textbooks, Supplemental Books, and Readings:

Textbook:

Zaks, Rodney and Wolfe, Alexander. From Chips to Systems.

(San Francisco: Sybex, 1987)

Readings: Datapro Publications (Stapleton Library)

R 001.64/ D2622 t Datapro Management of Microcomputer Systems.

R 001.6404/D262 a Datapro Report on Microcomputers.

R 638.2/D262 t Datapro Management of Office Automation.