UNDERGRADUATE CURRICULUM COMMITTEE
NEW PROGRAM/PROGRAM CHANGE PROPOSAL FORM

1. Which category (categories) best describes the curriculum change for this proposal:

- Newly established degree program
- **Newly established major**
- Newly established minor
- Newly established track/concentration/emphasis/certificate within an existing program
- Newly developed program offering no major or minor
- **Significant changes to an existing program's major/minor/ track/concentration/ emphasis/certificate**
- Termination of an existing program/major/minor/concentration/certificate/emphasis

2. Title of Program:

Bachelor of Science Degree in Computer Foundations, The Major in Information Systems

Catalogue Description (including credits): (Required only for new catalogue descriptions or changes to current catalogue descriptions)

(Please note that although we have re-written the section on our Common Core Courses, which apply to Physics and Computer Science as well, there are no actual changes in the curricula of those majors. Courses which are no longer part of the core will be moved into the individual major requirements).

THE BACHELOR OF SCIENCE DEGREE IN COMPUTER FOUNDATIONS

This program is designed to prepare students in the foundations of computer hardware and software. Students in this program can choose to major in **Applied Physics**, **Computer Science, or Information Systems**. In addition to requiring the successful completion of liberal learning curriculum*, the Bachelor of Science program in Computer Foundations requires the **successful completion of the common core courses, the major courses, and the support courses.**

Common Core Courses:

1) CPEN 371W;
2) CPSC 125, 150/150L-250/250L;
3) MATH 140;
4) For applied physics: PHYS 201/201L-202/202L, PHYS 340;
5) For computer science: PHYS 151/151L*-152/152L* or PHYS 201/201L*-202/202L* and PHYS 340 or MATH 235 or 260;
6) For information systems: PHYS 151/151L - 152/152L or PHYS 201/201L - 202/202L and MATH 235 or 260.

* For the BS degree no more than three of the four lecture courses may be from the same discipline and no more than two laboratory courses may be from the same discipline. To satisfy the INW-Area of Inquiry requirement, no more than one additional physics lecture course may be presented.

THE MAJOR IN INFORMATION SYSTEMS

The major in information systems prepares students to analyze and design systems that enable businesses and organizations to make effective and efficient use of today's most valuable resource: information. What information is needed, who needs it, and how to distribute and manage it are key elements in achieving an organization's strategic goals.

The field of information systems has expanded tremendously in its focus during the past decade. With the rise of the internet, it is no longer sufficient to prepare only for traditional business and organizational needs such as payroll. Applications that formerly required trained specialists are now self-service operations, mediated by the internet (e.g., airline reservations). In this climate of accelerated change, ubiquitous computing, and 24/7 access, the information systems major must be well-rounded with a thorough grounding in computer science. In addition, the IS major must be able to interact with people and understand the way organizations behave. Without these technical and organizational skills, it is not possible to analyze and design information systems.

The core courses provide a background in computer science, mathematics, and physics. The major and support courses develop information systems foundations in both technical and organizational areas. Because of the wide variety of information systems needs, students also select additional courses in multimedia, data structures, programming languages, networking, psychology and business. Degree studies requirements are those of the Bachelor of Science degree.

Graduates will be prepared for further study in graduate school or employment as systems analysts, systems designers, or network

designers or managers.

Support Courses in Information Systems:

1) MATH 125 or PHYS 341;
2) ACCT 201 and ECON 201;
3) BUSN 201
4) PSYC 303;

Major Courses in Information Systems:

1) CPSC 215, 270 CPSC 350-351, 430, 440;
2) Four major electives, at least two at the 300 or greater level, from CPSC 216, 260, 335, 336, 360, 425, 427, 446, 485, 495, and any 500 level course with advisor's permission; PSYC 201, 202, 305, 313; BUSN 311*, 323*, 370*; ACCT 202; ECON 202 with courses numbered 495 and above used no more than twice.

Capstone Course: CPSC 445W (3 credits).

* The prerequisites for these business courses include successful completion of the following courses with a C or better: ENGL 123, ULLC 223, ACCT 201-202, ECON 201, ECON 202, BUSN 201, MATH 125, MATH 135 or 140, CPSC 215.

3. What are the objectives for this program?

Quoting from the catalog copy above: "The major in information systems prepares students to analyze and design systems that enable businesses and organizations to make effective and efficient use of today's most valuable resource: information. What information is needed, who needs it, and how to distribute and manage it are key elements in achieving an organization's strategic goals. … In this climate of accelerated change, ubiquitous computing, and 24/7 access, the information systems major must be well-rounded with a thorough grounding in computer science. In addition, the IS major must be able to interact with people and understand the way organizations behave. Without these technical and organizational skills, it is not possible to analyze and design information systems."

4. For whom is the new curriculum primarily intended? Explain why it should become part of the curriculum, and how this proposal relates to the University's mission.

This new major is essentially a combination of the Networking & Communications, and the Information Systems concentrations that are proposed for removal from the BSIS degree.

5. What is the anticipated enrollment in the new curriculum for the next three years?

Approximately 15-20 graduating majors per year.

6. How will the new curriculum be staffed/administered?

No staffing changes are needed, as the new major is essentially a combination of two concentrations proposed to be removed from the BSIS degree.

7. Has this curriculum, or one closely related to it, been offered at CNU previously?
If so, is that curriculum currently being offered? How does the proposed curriculum differ? When is the last term the old curriculum will be offered?

Yes, this major has essentially been offered at CNU for many years as the Networking/Communications and Information Systems concentrations in the BSIS degree. We are submitting this program change proposal to the UCC as a result of a periodic review of our curricula, taking into account the recommendations of the Joint Task Force for Computing Curricula 2005, a cooperative project of the Association for Computing Machinery (ACM), Association for Information Systems (AIS), and the IEEE Computer Society. This will enable the new major to be more tuned to the information needs of businesses and organizations.

We are concurrently proposing changes to the BSIS degree to remove the concentrations from that degree and create a more general and flexible degree than what it currently is with the Networking/Communications and Information Systems concentrations. This will allow the BSIS to be accessible to more students.

8. Does the new curriculum or the change being proposed involve the creation of new courses, deletion of existing courses, or changes to existing courses? Please briefly list all changes here and indicate how these changes affect hours required for graduation.

For EACH new course being proposed, please complete the Undergraduate Curriculum Committee New Course Proposal Form and attach to this form. Remember to include a syllabus for each proposed course.

No.

9. Does the new curriculum involve special equipment or costs? If so, please explain.
No.

This program was reviewed by: *(Areas of Inquiry must be approved by BOTH academic Deans and both Curriculum Cttees)*	***Concur***	***Do Not Concur*****

Department(s): (1) _____ Date: _____

Department(s): (2) _____ Date: _____

CLAS Chairs: _____ Date: _____

SoB Curriculum Committee: _____ Date: _____

Dean: _____ Date: _____

Dean: _____ Date: _____

University Curriculum Committee: _____ Date: _____

Faculty Senate: _____ Date: _____

Provost: _____ Date: _____

President: _____ Date: _____

Board of Visitors: _____ Date: _____

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Distribution by the Provost Office following approval:
Department Chair(s), UCC Chair, Deans, Registrar

***If "Do Not Concur" is checked, please provide a statement of explanation.*

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