



# THE CONNECTICUT STATE UNIVERSITY

P.O. Box 2008 • New Britain, Connecticut 06050 • (203) 827-7700

## RESOLUTION

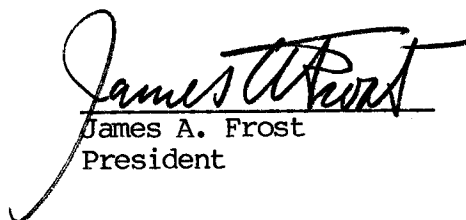
concerning

LICENSURE APPLICATION  
for  
BACHELOR'S DEGREE  
IN  
MANAGEMENT INFORMATION SYSTEMS  
at  
CENTRAL CONNECTICUT STATE UNIVERSITY

DECEMBER 7, 1984

RESOLVED, That under the authority granted the Board of Trustees in Chapter 185b, Section 10a-87 and Chapter 185b, Section 10a-149 of the General Statutes, the President of the Connecticut State University is authorized to seek licensure from the Board of Governors for a Bachelor's degree in Management Information Systems to be presented by Central Connecticut State University.

A Certified True Copy:

  
James A. Frost  
President



# THE CONNECTICUT STATE UNIVERSITY

P.O. Box 2008 • New Britain, Connecticut 06050 • (203) 827-7700

February 11, 1985

Dr. Mark Johnson  
Assistant Commissioner  
Department of Higher Education  
61 Woodland Street  
Hartford, CT 06106

Dear Mark:

On behalf of the Trustees of the Connecticut State University I am pleased to forward the enclosed proposal for a bachelor's program in Management Information Systems to be presented by Central Connecticut State University.

A copy of the Trustees resolution authorizing the request for licensure, an application summary, and multiple copies of the application are submitted herewith.

Please let me know if you have any questions about the application.

Sincerely,

Thomas A. Porter  
Vice President for  
Academic and Student Affairs

cc: Dr. Frost  
Encls.

CONNECTICUT BOARD OF HIGHER EDUCATION

81 WOODLAND STREET  
HARTFORD, CONNECTICUT 06108

PROGRAM SUMMARY

DESCRIPTION OF PROPOSED ACADEMIC PROGRAM OR DEGREE

PROGRAM NAME	DATE OF SUBMISSION TO CBE
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Management Information Systems

February 11, 1985

TITLE OF DEGREE (and abbreviation)
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Bachelor of Science (B.S.)

PROGRAM CODE NO.	TITLE
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01 6: 11 2 0: 1 Management Information Systems

DEPARTMENT AND SCHOOL OR COLLEGE
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School of Business

APPLICANT INSTITUTION	PROPOSED INITIATION DATE
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Central Connecticut State University

Fall, 1985

GEOGRAPHIC LOCATION OF PROGRAM
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New Britain, Connecticut

INSTITUTIONAL LIAISON PERSON	TITLE	TELEPHONE
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See Below

BOARD OF TRUSTEES STAFF LIAISON (if applicable)
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Thomas A. Porter, Vice President/Aca. & Student Affairs, Connecticut State University 827-7700

NOTE: (Describe the proposed academic program below and on a separate page if necessary.)

Revolutionary changes are taking place in business management due to the impact of micro-computers on information processing. Expertise in information systems is essential in complex enterprises which must adjust to rapidly changing competitive circumstances. Strong demand exists in Connecticut for personnel in the Management Information Systems field, and Central Connecticut State University is seeking to respond to this need.

Central's proposal for a major in MIS includes the following elements:

1. All students in the University are required to complete a 62 semester hour General Education program as outlined in the University catalog. Students majoring in any School of Business program must include in their General Education requirement courses in English composition, introductory economics, elementary statistics and applied calculus.
2. A common core of 36 semester hours of business courses in fields such as accounting, finance, marketing, business statistics, introductory MIS, management, law, managerial communications, and business policy is required of all students majoring in any School of Business program.
3. Students in the MIS major will be required to take 24 semester hour credits in the new major. This requirement corresponds to the model curriculum presented by the Data Processing Management Association (DPMA) for undergraduate study in this discipline.

Required courses (15 hours):

- MIS 310 Application Program Development I
- MIS 311 Application Program Development II
- MIS 330 Information Systems Analysis and Design
- MIS 331 Structured Systems Analysis and Design
- MIS 340 Data Base Program Development

(please turn over)

DO NOT FILL IN	LICENSURE ACTION	ACCREDITATION ACTION
	SCA _____	SCA _____

Students may then select 9 hours (3 courses) from the following directed electives:

- MIS 400 Decision Support Systems
- MIS 410 Distributed Data Processing
- MIS 420 EDP Audit and Controls
- MIS 430 Information Systems Planning
- MIS 440 Information Resource Management
- CS 372 Introduction to Computer Organization and Programming
- CS 460 Database Management Systems
- SA 480 Office Communication Systems

School of Business  
Central Connecticut State University

MIS REPORT

November 23, 1984

DESCRIPTION OF PROPOSED ACADEMIC PROGRAM OR DEGREE

PROGRAM NAME <b>Management Information Systems</b>		DATE OF SUBMISSION TO BME <b>December 14, 1984</b>
TITLE OF DEGREE (and abbreviation) <b>Bachelor of Science (B.S.)</b>		
PROGRAM CODE NO. <b>01 611 2 01 1</b>	TITLE <b>Management Information Systems</b>	
DEPARTMENT AND SCHOOL OR COLLEGE <b>School of Business</b>		
APPLICANT INSTITUTION <b>Central Connecticut State University</b>		PROPOSED INITIATION DATE <b>Fall, 1985</b>
GEOGRAPHIC LOCATION OF PROGRAM <b>New Britain, Connecticut</b>		
INSTITUTIONAL LIAISON PERSON <b>See Below</b>	TITLE	TELEPHONE
BOARD OF TRUSTEES STAFF LIAISON (if applicable) <b>Thomas A. Porter, Vice President/Aca. &amp; Student Affairs, Connecticut State University 827-7700</b>		

APPENDIX (Describe the proposed academic program below and on a separate page if necessary.)

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(please turn over)

DO NOT FILL IN  These items will be completed by the BME staff.	LICENSURE ACTION	ACCREDITATION ACTION
	SCA _____ PAAC _____	SCA _____ PAAC _____

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Connecticut Board of Governors for Higher Education

QUESTIONNAIRE FOR LICENSURE  
OF A PROGRAM IN HIGHER EDUCATION

October 4, 1984

CENTRAL CONNECTICUT STATE UNIVERSITY

Bachelor of Science in Management Information Systems

I. Purposes and Objectives (see IO-300-II)

- a. State the purpose and objectives of this program in relation to the goals and objectives of the institution. (Be as specific as possible.)

The mission of the School of Business is to educate and prepare students for managerial careers in business and industry, and for the teaching of business at the secondary school level. The School offers programs in the following areas: Accounting, Finance, Management, Marketing, Secretarial Science and Secretarial Studies (teaching certification). As part of the Marketing major, a specialization in MIS is presently offered.

The ever-increasing pace of development of computer hardware and system software has resulted in the continuous growth and sophisticated use of computers in business and industry. There is need to upgrade this specialization to a major in order to provide students with sufficient background to grow professionally and to prepare themselves for employment opportunities within the rapidly-changing information systems field.

Conceptually, computer disciplines in higher education are divided into two broad categories; those that educate developers of basic computer technology and those that educate users of that technology.

In the first category are the Computer Engineers who develop the hardware components and the circuit logic used in the components and the Computer Scientists who are concerned with the development of computer system software technology. Computer Scientists are educated in the design and implementation of system software--operating systems, language translators, data management software and other aids that facilitate the use of computer hardware. Graduates from this program become developers of basic system software technology. They provide the hardware and system software interfaces so that the user may create solutions to problems in the many disciplines to which computers are applied. Traditionally, this program has also supplied the scientific programmers, since the program is highly theoretical and mathematical in nature.

In the second category within the business applications area there are two distinct thrusts: Business Data Processing and Management Information Systems (MIS). Business Data Processing programs are offered at the community college level, while MIS programs are offered at the baccalaureate level. Graduates of Business Data Processing programs earning degrees at community colleges are having difficulty finding employment. Businesses currently prefer to hire employees in data processing with bachelors degrees with a specialization in Management Information Systems. Management Information Systems



programs prepare persons for application programming, systems analysis, communication specialties and information systems management careers. In this program there is a strong emphasis on business and organizational studies as well as information technology.

Information systems technology in business and industry is moving rapidly toward terminal accessed database systems. Data communication and distributed data processing are becoming integral parts of many information systems as data entry and data processing are moved out of the computer room. Systems to implement these types of applications are more complex and require increased consideration for human/software/hardware interfaces than did those for batch processing. With the increased complexity of systems software developed by the Computer Scientists, the requirement for more sophisticated development tools becomes apparent. Structured system development strategies and techniques are becoming primary tools in the system development process. In addition to COBOL, which will likely remain the dominant business application language for some time, other mini-microcomputer languages will continue to be developed and other "user friendly" inquiry, report writer and decision support languages will become increasingly popular ways for non-technical persons to use the computer.

The Management Information Systems person will be required to develop new application programs using these higher-level languages and improved methodologies such as structured and systems design and will have to know how to integrate these designs with packaged applications. The ability to consult in "make or buy" decisions will also become an important skill. Finally, the kind of problems to which computers will be applied will continue to expand. Not only have we entered the second generation of computer systems design through upgrading the processing from batch to on-line, but also new systems that aid the decision-making process and that automate the office function are beginning to be developed. The computer is becoming a management tool as well as an operational tool to be used in the planning, control and decision-making activities of the organization. It is the need to train students to meet the above challenges that this proposal is addressing.

Another major consideration about this program is that it is incorporated into a bachelor's degree format. As important as the technology of the discipline of MIS is, it is equally important that the practitioner have a broad grasp of organizational and managerial concepts.

The application of MIS, by its very name, implies the incorporation of information systems into the mainstream of an organization's management structure. The MIS specialist must have an understanding of such a structure and its complexities in order to provide the proper flow of the information stream.

The undergraduate bachelor's degree program provides introduction to a broad spectrum of management concepts through the exposure to marketing, management, finance, business law, statistics, and economics courses. Such breadth will provide the MIS graduate with a strong base with which to understand the organizational dynamics required in the field of information systems.

- b. State why this program is considered to be an appropriate offering for this institution at this time. Include reference to supporting information such as an institutional master plan.

Central Connecticut State University exists to serve the people of Connecticut. The philosophy of serving has been the hallmark of this institution since 1849 when the New Britain Normal School was established to train teachers for the schools of Connecticut. Changing needs in Connecticut have caused institutional changes to occur during the long history of the University in order that it be able to respond effectively to the citizenry. The present and diverse resources and multi-purpose nature of the institution as a comprehensive state university make the fulfillment of this responsibility possible.

The resources of the entire institution will be available for this program. Of special significance is the Elihu Burritt Library with its 370,747 volumes, 1,620 current subscriptions, 80,234 microforms and 6,827 audiovisual materials. A unique resource is The Stanley Works Center for Free Enterprise, located on campus which seeks among other goals, to increase the library holdings directly related to the business function in our society through direct financial support. The most recent contribution was \$3,000. The School of Business with its accounting, marketing, business machine facilities, and Micro-Computer laboratory complete the on-campus resource capability.

In addition to the foregoing information about available resources for the proposed program, it is important to note the attached "Fiscal Impact Statement" which describes the resources which need to be made available in order to assure that the initial high quality of the program is maintained. This statement further illustrates the serious commitment of the University to the successful implementation and operation of this program. No appreciable capital or operational cost will be associated with the operation of this program since staff, equipment and physical facilities are already in place. (See Fiscal Impact Statement, pg. 20)

In summary, the development of this program began two years ago as an option for Marketing majors. It is operating well as an option. As of March, 1984 there were 113 students pursuing this field of study and additional students are showing interest in the program.

It has been and will continue to be necessary for Central Connecticut State University to diversify its academic degree program offerings and special projects to keep pace with the changing educational and career goals of students. While Central Connecticut State University now offers 43 different Bachelor's degree programs, 34 different Master's degree programs, and one Sixth Year Professional Diploma, this proposed program will provide some other essential program/project additions and modifications. Central has also developed special spin-off career focuses in some of the existing degree programs which were in direct response to the expressed interests and needs of students and employers in the state. These new and relevant career emphases have made graduates of Central more "marketable" in the state's economy.

Through this diverse group of degree programs with their related career options, Central Connecticut State University has been able to serve Connecticut by providing a supply of well-educated and well-trained employees for businesses, industries, and agencies in the state; by updating the knowledge and skills of current employees; by using the unique resources of the University for training, research consultation, and public service; and by providing students with the background necessary for entry into advanced levels of preparation for professional careers. In order to continue such service and to broaden its impact on the State of Connecticut, the proposed program should be approved and implemented as readily as possible.

Planning for the changing career needs of students is a process which does not cease at Central Connecticut State University. After a careful study and review of the resources of the University as related to these changing interests and needs of students and the general public, the proposed program was developed. The entire concept along with specific content elements comprise a sincere effort by Central Connecticut State University to use its particular resources in the best interest of Connecticut. Objectively, the Bachelor of Science in Management Information Systems, a career program, falls well within the stated legal mission of The Connecticut State University, including Central.

The spirit and manner with which Central has approached the development and submission of this proposed program can best be expressed by a quotation from the recently completed report of the Education Planning Committee sponsored by the Board of Education, Board of Higher Education, and the Office of Policy and Management of the State of Connecticut. On Page 5 of that report, Educating for Employment, the committee states:

"Despite numerous examples of positive responses by educators to labor market needs, the number of persons trained to fit many job specifications is often limited and insufficient. More comprehensive and systematic educational strategies are required to satisfy labor needs while simultaneously educating Connecticut citizens for their social and personal,

as well as economic, well-being. The problem is complex and finding solutions is not exclusively within the province of education. Educators, in conjunction with business, government, and community agencies, must look critically to those aspects of the situation over which each has control and responsibility and decide on the best ways in which they can direct their resources to meet demonstrated needs."

2. Administration (see 10-330-12)

- a. How were the program plans developed and approved? Give the dates of approval by the institution.

The program was inspired by inquiries and requests from students currently enrolled within the university, transfer students and a number of incoming freshmen. Under the direction of Dr. Robert Minter, Dean of Central's School of Business, a program to prepare students for careers in the management and design of information systems was developed. The emphasis in the program is an information systems technology and a business and organizational structure. Since its inception in 1982, much of the information for program development and change has come from students seeking a program which was not purely technically oriented. The program was sent to Central's Curriculum Committee in March, 1982. The committee accepted the proposal as a program and course change within the School of Business under the 25% rule. The 25% rule allowed the School of Business to treat the program as an internal program change because it did not encompass changing or adding courses which exceeded 25% of the current offering in the department.

A major inquiry was made of the community colleges within the immediate geographic area. Responses indicated a strong interest for such a program.

Representatives of local business and industry organizations were queried as to their impending need for personnel trained in this discipline. As previously stated, the response was highly positive.

Examination of the relevant curricula in neighboring colleges and universities indicated a minimum number of programs which provided a four-year degree in the Management Information Systems area.

Only three schools are currently licensed or accredited in MIS (University of Connecticut, Fairfield University, and University of Bridgeport) in Connecticut and none of them operate within the immediate radius serviced by Central Connecticut State University.

Further research indicated that a full MIS major would be more appropriate to the career needs of students. Therefore, this proposed program is offered for approval of the Bachelor's Degree Program in MIS.

- b. Who is directly responsible for the administration of the program and supervision of its faculty?

Robert L. Minter Ph.D., Purdue University: Dean of the School of Business

Richard Cardinal Ed.D., University of Massachusetts: Coordinator of the MIS Program.

- c. List (1) any accrediting agencies which already have accredited the institution and (2) any accrediting agency to which you plan to apply for program accreditation.

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On the undergraduate level, Central Connecticut State University now has the authority to offer programs which lead to the Bachelor of Science, Bachelor of Arts, and Bachelor of Fine Arts Degrees. These degrees are awarded in such general fields of study as teacher education, the liberal arts and sciences, business, industrial technology, and computer science. These programs, as well as the institution itself, are fully accredited by the New England Association of Schools and Colleges, the region's accrediting agency. The date of the last reaccreditation visit and review by this agency for Central Connecticut State University was 1978.

Central does not plan to apply for program accreditation for this particular program through any accrediting agency other than the Connecticut Board of Governors for Higher Education. This accreditation process will follow the licensure period and will be conducted through the regularly required BOG procedures.

3. Finance (see 10-330-13)

- a. Describe the amount of financial support committed to the program by the administration and trustees. Indicate the date(s) these funds will be available.

The program does not require significant additional expense. The School of Business has spent approximately \$40,000 since 1983 for the establishment of a School of Business Microcomputer laboratory. The laboratory was established for all School of Business majors. The proposed program would utilize these facilities. Additional funds are to be spent this year for upgrading the laboratory hardware, and software purchases. For further analysis, see Explanation of Fiscal Statement, page 22.

- b. Complete a Fiscal Statement Form provided and make it available to staff and the Board.

Please see attached completed Fiscal Statement Form.

4. Faculty (see 10-330-14)

- a. List the name, title and qualifications for each person involved in the program, including degrees with areas of specialization, institutions at which degrees were earned, and pertinent experience.
- b. For each vacant or proposed position, provide title, position, qualifications and proposed date of appointment.

The following Staffing Plan for the Management Information System Major contains a list identifying four faculty members who are presently teaching courses in the program as part of their regular teaching

CENTRAL CONNECTICUT STATE UNIVERSITY  
STAFFING PLAN FOR THE  
MANAGEMENT INFORMATION SYSTEMS MAJOR

The basic curriculum for the Bachelor of Science in Management Information Systems at CCSU will be taught by our incumbent staff of full-time faculty supplemented by part-time lecturers. The full-time faculty staffing is currently involved in teaching the MIS specialization of our Marketing program to both full-time and part-time students. The following listing of full-time faculty members demonstrates that CCSU possesses adequately trained and experienced faculty members to service this program.

Present Full-Time Faculty

Maxine Buxman, Ed.D., University of Massachusetts, Associate Professor of Marketing/MIS. Dr. Buxman has held positions in computer science teaching, computer consulting and computer related educational consulting with such organizations as WCSU, Connecticut Board of Education and American Data Systems.

Richard Cardinali, Ed.D., University of Massachusetts, Assistant Professor of Marketing/MIS. Dr. Cardinali has served in computer systems management and design positions with the U.S. Army, Falcon Mfg., Dynamics Research, Inc., and Seaboard Metals.

Dennis McGuire, Ph.D., Ohio State University, Assistant Professor of Marketing/MIS. Dr. McGuire has acted as a Business Manager, Computer Programmer and Data Processing Administrator with Allstate Energy Consultants, Board of Cooperative Educational Services and Onandaga Community College.

Gretchen Marx, M.B.A., University of California, Berkeley, Instructor of Marketing/MIS. Ms. Marx served as a Marketing Representative for I.B.M.

5. Curricula and Instruction (see IO-330-15 and the Statement on Crediting Experiential Learning.)

- a. (1) Give the number, title and a narrative description for each course in the proposed program, noting which courses are new. Include sufficient detail in course description so that content and level are clear, or attach appropriate and referenced excerpts from the catalog.

Essentially the School of Business requires the normal 36-credit hour common core, including MIS 201, Introduction to Management Information Systems. In addition, students will be required to take 15 credits in Management Information Systems and 9 credit hours of electives. An overview and detailed course description are shown on the following pages.

MIS COURSES  
MANAGEMENT INFORMATION SYSTEMS

MIS 201: Introduction to Management Information Systems  
An overview of computer information systems. This survey course introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business. The fundamentals of computer problem solving and programming in a higher-level programming language are discussed and applied. No credit given to students with credit for D.P. 301.  
3 credits. (Equiv. DP 301)

MIS 310: Application Program Development I  
Prereq.: MIS 201 or permission of instructor. An introduction to computer programming in a business environment. Emphasis on the fundamentals of structured program design, development, testing, implementation and documentation of common business-oriented applications using COBOL. Discussion and application of top-down design strategies and structured programming techniques for designing and developing problem solutions. No credit given to students with credit for D.P. 435. 3 credits. (Equiv. DP 435)

MIS 311: Application Program Development II  
Prereq.: MIS 310 or permission of instructor. A continuation of MIS 310. Emphasis on structured methodology of program design, development, testing, implementation, and documentation of common business-oriented applications using COBOL. Includes development of programs and systems of batch and interactive environments.  
3 credits. (New)

MIS 330: Information systems - Analysis & Design  
Prereq.: MIS 311. Overview of the system development life cycle. Emphasis on current documentation through the use of both classical and structured tools, techniques for describing process flows, data flows, data structures, file designs, input and output designs and program specifications. Discussion of the information gathering and reporting activities and of the transition from analysis to design. No credit given to students with credit for DP 436. (Equiv. DP 436)

MIS 331: Structured Systems Analysis and Design  
Prereq.: MIS 330 or permission of instructor. Advanced study of structured systems development. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodologies for dealing with complexity in the development of information systems. 3 credits. (New)

MIS 340: Database Program Development  
Prereq.: MIS 331. Introduction to application program development in a database environment with an emphasis on loading, modifying and querying the database. Discussion of storage devices, data administration and data analysis, design and implementation. No credit given to students with credit for DP 437. 3 credits. (Equiv. DP 437)

MIS COURSES  
MANAGEMENT INFORMATION SYSTEMS

**MIS 400: Decision Support Systems**

Prereq.: MIS 311. An analysis of the highest level of information support systems which serve the manager user. This system provides quantitative-based information derived from one or more data bases within and/or external to an organization and used to aid managers in the decision-making process. Theoretical concepts will be applied to real-world applications with an analysis of examples from specific organizations. 3 credits. (New)

**MIS 410: Distributed Data Processing**

Prereq.: MIS 340 or permission of instructor. The features of centralized, decentralized and distributed systems will be examined. The impact of distributed systems on the business enterprise will be exposed via the medium of case studies. Technology implications of computer hardware, software and communications are discussed as they relate to the design, development and implementation of distributed data processing systems. 3 credits. (New)

**MIS 420: EDP Audit and Controls**

Prereq.: MIS 340 or permission of instructor. An introduction to EDP auditing. Emphasis on EDP controls, types of EDP audits, and concepts and techniques used in EDP audits. Exposure to risk assessment and professional standards in the field of EDP Auditing. 3 credits. (New)

**MIS 430: Information Systems Planning**

Prereq.: MIS 340 or permission of instructor. An introduction to the financial, technical and strategic information systems planning process to the overall business goals, policies, plans, management style and industry conditions. Emphasis on the means of selecting large systems projects; assessing the installation's current state; determining processing, staffing, software, hardware and financing approaches. Review of hardware, software and services information sources. 3 credits. (New)

**MIS 440: Information Resources Management**

Prereq.: MIS 340 or permission of instructor. A seminar course providing a broad overview of the information systems management function. The course emphasizes information systems management, with particular attention on planning, organizing and controlling user services and managing the computer information systems development process. 3 credits. (New)

**CS 372: Introduction to Computer Organization and Programming**

Prereq.: CS 271 or Math 471. Concepts of assembler language, machine language, macro-instructions, subroutines, program checkout, structure of assemblers, use of operating systems and design of computer systems. 3 credits.



MIS COURSES  
MANAGEMENT INFORMATION SYSTEMS

CS 460: Data Base Management Systems

Prereq.: CS 295. Database systems are considered from both the designer's and user's point of view. Physical implementation access techniques. 3 credits.

SA 480: Office Communication Systems

Prereq.: SA 329. Focus is on the study and use of oral communication media, reprographics applications, and written communication transmission for the modern office. 3 credits.

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5. a. (2) Describe the course numbering system.  
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The course numbering system at Central Connecticut State University has been developed to identify course level and the eligibility of students to enroll in such courses.

<u>Course Numbers</u>	<u>Course Level</u>	<u>Student Eligibility</u>
1-99	Non-Credit Courses	As appropriate
100	Search Courses	Open only to undergraduate students eligible for the new General Education Program
101-199	Freshman	Normally open to freshmen; and, in general, to all undergraduates
200-299	Sophomore	Normally open to sophomores; and, in general, to all undergraduates
300-399	Junior	Normally open to juniors; and, in general, to all undergraduates
400-499	Senior	Normally open to all seniors; and, in general, to juniors, seniors, and graduate students. Graduate students enrolling in such courses are required to complete additional coursework emphasizing required projects in research and writing
500-599	Graduate	Exclusively for graduate students
600-699	Graduate	Exclusively for graduate students

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5. a. (3) Indicate the required or "core" courses and those courses from which electives may be selected. Stipulate the number of courses or hours and their distribution required to complete the program.  
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(Please see previous pages for course descriptions.)

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- b. How do the institution's policies regarding transfer of credit, credit by examination or crediting experiential learning and noncollegiate-sponsored instruction apply to this program?
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Generally, transfer credits from other institutions are granted if the student's grades are C or better for each course submitted for transfer credit. Coursework taken at another college which parallels the requirements for the proposed program will be accepted. The University has transfer credit limitations on the number of semester hours which are acceptable for transfer and the number of hours a student must complete at Central in order to obtain a degree here. Such policies will be followed for students enrolling in the proposed program also.

Students who have obtained an Associate degree from a community college are able to transfer credits to Central according to a slightly different plan which also will be acceptable within the proposed program.

At this time Central has no provision to grant college course credit for experiential learning. Various noncollegiate-sponsored instruction credit is examined on an individual basis as are most credit by examination requests.

The department chairpersons are authorized to grant course substitution credit if they feel that the proposed course provides a similar learning experience as the required course.

At the present time, there does not exist any means through which a student can obtain credit for courses in this program on the basis of credit by examination or crediting experiential learning and non-collegiate sponsored instruction.

- 
- c. Indicate any requirements and arrangements for clinical affiliation, internships, and practica or work experience. Describe how these will be administered and furnish the following assurances:
- (1) The courses of the program, and the related clinical or work experience, have been articulated with appropriate credits assigned.
  - (2) The institution has or will have a qualified staff coordinator for the program before its inception.
  - (3) The institution will provide appropriate arrangements for student work experience.
  - (4) The work activities of the students will be structured by the University as an educational experience with supervision, teaching and evaluation under the control of the University.
  - (5) Agreements or contracts exist between the college and the agency in which the students will receive their practical experience.
  - (6) Appropriate procedures have been established which the University will use for the evaluation of students.

Internships and practica or work experience are not required at this time in the program. However, students are encouraged to take advantage of these opportunities when they are available. An internship with the Aetna Life and Casualty Company allows senior students to enhance their knowledge of the MIS field by working 20 hours per week and 35 hours during the summer months. This is a non-credit opportunity for them. Students are paid for their time and upon graduation are sometimes hired by the company in the MIS field. Communication has been established with Connecticut National Bank and it is envisioned that a similar program will be established. Opportunities also exist within the Co-op Program for work experience in the MIS field.

6. Resource Centers and Libraries (see 10-330-16)

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- a. What library and other learning resources are available at the institution or elsewhere which support the program? Describe the accommodations in terms of study space, professional assistance and time schedule of availability.
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As stated previously, the resources of the entire institution will be available for this program. Of special significance is the Elihu Burritt Library with its 370,747 volumes, 1,620 current subscriptions, 80,234 microforms, and 6,827 audiovisual materials. The Stanley Works Center for Free Enterprise, located on campus, made a recent contribution of \$3,000 to increase the library holdings directly related to the business function in our society.

The Elihu Burritt Library is administered by both a Director and Assistant Director of Library Services who along with a full-time staff of fifteen professionally trained librarians will offer direct assistance to all students and faculty associated with this program. The services and materials will be available during the day and in the evening. Study stations and duplicating machines are also readily available. Elihu Burritt Library is in close proximity to Maria Sanford Hall, which houses the School of Business.

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- b. Report as accurately as practicable the number of volumes, periodicals and other materials, by subject area, which directly support the program.
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Number of Books in the Library by Subject

Accounting	600
Finance	1,420
Management	1,500
Marketing	700
MIS	1,200

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- c. Provide a representative listing of periodical literature in the library which will support the program.
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Management Information Systems

Computer World	Info World
Datamation	Personal Computing
Mini-Micro Systems	Byte
Computer Newsletter	PC World
Computer Decisions	PC Technical Report
Info Systems	Software News
Conduit-Pipeline	DEC

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- d. List any new learning materials which will be added for the program. Indicate when they will be available for student and faculty use.
- 

The large, spacious, modern on-campus Elihu Burritt Library is administered by both a Director and Assistant Director of Library Services who along with a full-time staff of fifteen professionally trained librarians will offer direct assistance to all students and faculty associated with this program. The services and materials will be available during the day and in the evening. Study stations and duplicating machines are also readily available. Elihu Burritt Library is in close proximity to Maria Sanford Hall, which houses the School of Business.

#### COMPUTER FACILITIES

The University has excellent computer facilities. The School of Business has recently furnished a microcomputer lab located in Maria Sanford Room 107 with 17 Apple IIe's, two DEC Rainbow 100's and an IBM PC. The School of Technology will soon have 5 IBM PC's. In addition, the University will have a new microcomputer facility available in Fall 1984 in Marcus White Annex which will provide 60 DEC Rainbow 100 computers. There are also two DEC PDP - 1170 computers which can be accessed via terminals located in various areas on campus. Half of the available computer capacity is committed to academic purposes. Computer capability is also available through a direct line to the University of Connecticut. These resources are all available to support the proposed program. The individual counseling of participating students will bring students and resources together in a way to enhance the proposed program's ability to serve students most effectively.

Some additional information about Central's School of Business is now provided because it reflects directly upon the adequacy of resources available to the students to be enrolled in the MIS Bachelor's Degree Program.

The School of Business was initially established as the Department of Business Administration in 1965. Broadening of its course offerings and programs led to the establishment of the Division of Business in 1967. In 1972, the Division of Business became the School of Business with its own administrative leader (Dean of the School of Business). The School now has the largest number of undergraduate students (day and part-time) enrolled in any school of business in Connecticut.

7. Admission, Student Personnel, and Graduation Policies (see 10-330-17)

- a. Describe the admission requirement for the program, the policies and requirements for academic achievement to remain enrolled in good standing, and the requirements for graduation. Note any differences from general institutional policies.

Central Connecticut State University is aware that the quality of any program is directly related to the academic abilities, achievements, and potential of those students who are admitted. As with all other programs at Central, the applicants are first admitted to Central and can subsequently declare a major in a School of Business Program.

- b. What academic and career counseling or other services will be provided for students who may enroll in this program?

Immediately upon admission to this program, a student will be assigned a faculty advisor (full-time faculty member associated with the Management Information Systems Program) who will be directly responsible for advising the student on academic matters.

As stated previously, "the resources of the entire college will be available for this program". Consequently, the Director of Central's Center for Career Development and Placement and that Center's staff will be available for career counseling, and Central's Counseling Center and its highly trained staff will be available for other forms of counseling as appropriate.

- c. How many students are expected to enroll in the program? List the numbers by part-time and full-time.

Experience at Central Connecticut State University with other bachelor's level programs has shown that such a program would be most beneficial to students who are members of the university's full and part-time, career-oriented clientele. There will be an increasing number of students who need and want this program in the future. All the information contained in previous sections of this questionnaire indicate that a large potential student population is desirous of this proposed program at Central. There are 113 students enrolled in this MIS program as it operates now (March, 1984) as an option/specialization under BS in the Marketing Degree Program.

Projected enrollment is as follows:

	<u>1985-86</u>	<u>86-87</u>	<u>87-88</u>	<u>88-89</u>
Full-time	200	250	300	350
Part-time	80	100	110	120

8. Student and Alumni Records (see 10-330-18)

How is the program to be evaluated internally? What criteria have been established? Where will the program records be kept?

The program is in operation now as an option and a continuing process of evaluation has been followed. The program has been evaluated in terms of the following criteria:

- a. The ability of the program to attract adequate enrollments.
- b. Acceptance and support of the program by the business and industrial communities.
- c. Institutional research studies on such topics as student profiles, levels of student achievement, and the extent to which statistical forecasts are achieved.

Further, it is felt that direct involvement of the participating students in the evaluation process can be one of the most effective ways to gain insight into how well the program is achieving its stated objectives. Additionally, the program coordinator maintains on-going cooperative efforts between Central Connecticut State University and the business and industrial communities being served. Information gathered from these several means of program evaluation will be studied carefully and seriously, and program adjustments made as appropriate to improving the university's ability to serve Connecticut and its citizens.

9. Physical Plant and Facilities (see 10-330-19)

Describe the physical facilities (classrooms, laboratories, offices) and specialized equipment now available, or which will be provided (including schedule for acquisition) to initiate and maintain the program.

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In foregoing sections of this questionnaire much has been written about the extensive physical facilities now available and directly related to this program. However, it should be pointed out at this time that among the most significant assets Central offers to the students who may enroll in this program are the classrooms, laboratories, offices, and specialized equipment found in Maria Sanford Hall, the home of the School of Business. This facility has modern and complete resources which are available to both day and night students.

10. Catalog and Publication (see 10-330-20)

List and submit copies of any catalog(s), brochure(s) or other publications in which the program is listed or described or will be listed or described.

Central Connecticut State University Undergraduate Catalog - revised, updated, and printed every year.

Central Connecticut State University Extension College Bulletin - revised, updated, and printed before each semester and summer session.

## 11. Certification

Provide certification that program and institutional hiring and admission practices are in compliance with all applicable state and federal laws, regulations, and orders; and that the institution will operate under the provisions of approved non-discrimination plans including consideration for women and minorities and accessibility for the handicapped.

The general catalog contains the applicable statement about Central's policy of nondiscrimination in institutional hiring and admission practices as related to undergraduate programs. The attached assurances provide further certification that Central Connecticut State University as a total institution is in compliance with all laws and regulations governing nondiscrimination.

## 12. Time Schedule and Authorization

- a. Indicate any specialized approval, licensure or accreditation, by any agency other than the Connecticut Board of Governors for Higher Education, to the extent that it is related to this program.

None required for this existing program.

- b. Indicate the earliest date on which students may be expected to complete the program.

There are students currently taking courses in the MIS specialization in the Marketing Major. The granting of licensure and accreditation will enable students to earn their degree in the new MIS major as early as June, 1986.

## 13. Educational Planning Statement

The Board will take into account that there may be a difference in the types of data and justification for different levels of programs. Provide the following information:

- a. The relationship of the proposed program to other programs and resources in the institution, and any institutional plan.
- b. Data and commentary to indicate what consideration has been given to similar programs in the geographic area to be served by the proposed program. Identify any similar existing or proposed academic programs or degrees in Connecticut in public, independent or proprietary institutions.
- c. Data and commentary regarding the relationship of the proposed program to further educational opportunities and current employment trends.
- d. A description of any efforts made to identify student demand for the program and an estimate of enrollment.



e. A description of program and career articulation noting career opportunities as applicable (local, regional, state and/or national estimates), according to the nature and goals of the program.

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- a. Presently the MIS program is an option under the Marketing Major, but the subject matter is not related to the Marketing field, and MIS should be granted permission to a major in its own right. The School of Business is a comprehensive school and needs to complete its range of degree offerings to insure it provides its students with the requisite skills and knowledge to match the business needs in Connecticut.

#### Concluding Statement

A recent publication of the Association of Computer Machinery by Jay F. Nunamakeu of the University of Arizona succinctly supports the need for an Information Systems Degree Program. The need for a degree program which provides both technical and organizational knowledge is paramount. The use of computers in support of organizational processes such as Data Processing, Decision Support, and information storage and retrieval requires systems so designed and implemented that they:

- \*Identify information requirements (based on an understanding of organizational processes, and decision-making).
- \*Fit technical characteristics into the behavioral framework of the organization.
- \*Match technical design with human characteristics.

Computer science degree programs typically emphasize hardware and software technical knowledge and exclude the organizational dimensions. Computer science curricula, therefore, serves to meet the needs of those occupations needing a technical emphasis.

There is need for another program (IS) to meet the other range of positions. The IS curriculum has some subject matter also contained in computer science but has necessary organizational and behavioral coverage.

The American Society for Information Science (ASIS) has conducted similar research and cites the demand for information handling experts will increase as the growth of human knowledge continues to expand and the need for information becomes even greater. Central Connecticut State University MIS graduates with the ability to deal with the total information process will increasingly be recognized and rewarded.

ASIS research indicates that they will also find in this field a deeply satisfying career with breadth of movement, personal challenge, and stimulating and exciting work.

All of us at Central associated with the planning, development, and seeking of formal recognition of a major in MIS feel that this completed questionnaire is sufficient to warrant licensure approval by the Connecticut Board of Higher Education immediately.

We wish to thank all those persons and agencies who aided our efforts to gain licensure for this important program, especially those administrators, faculty, and students, who contributed time and effort to the formulation of answers for this questionnaire. We know that they join us in looking forward to the many benefits which will accrue to the State of Connecticut and its economy once this major in MIS is licensed and then implemented.

FISCAL STATEMENT

Proposed New Academic Program: Management Information Systems

Institution: Central Connecticut State University

	Year 1 1985-86	Year 2 1986-87	Third Year 1987-88
<u>Estimated New Expenditure</u> (private institutions list expenditures on General Fund Lines)			
Personnel (Faculty and Support) <sup>1</sup>			
Full-Time positions			
Number	0	0	1
Salaries - General Fund	0	0	\$30,000
Salaries - Extension Fund	0	0	0
Part-time positions			
Number	.75	1.5	.75
Salaries - General Fund	\$4,000	\$8,000	\$4,000
Salaries - Extension Fund	\$2,000	\$4,000	\$2,000
Other Expenses <sup>2</sup>			
General Fund	Lab Assistant \$600	\$1,000	
Extension Fund	Software \$500	\$1,500	\$2,350
	Journals \$400	600	
Equipment (incl. Library Books) <sup>3</sup>			
General Fund			
Extension Fund			
TOTAL NEW GENERAL FUND EXPENDITURES	\$5,500	\$10,350	\$36,350
EXTENSION FUND	\$2,000	\$4,000	\$2,000

<sup>1</sup>Faculty, professional, managerial, clerical, and other persons employed by the institution in support of the proposed new academic program.

<sup>2</sup>Compensation for services secured by contract with firms or individuals not employed by the institution and purchases of supplies, materials, and equipment not normally regarded as capital items.

<sup>3</sup>Items of equipment with a normal useful life of three years or more and a value of \$100 or more or, if the useful life is less than three years, a value of \$250 or more.

Board of Higher Education  
61 Woodland Street  
Hartford, Connecticut 06105

Proposed New Academic Program: Management Information Systems  
 Institution: Central Connecticut State University

Third Year

	Year 1 19 <u>85</u> -86	Year 2 19 <u>86</u> -87	<del>First Year of</del> <del>Full-Operation-</del> 19 <u>87</u> -88
<u>Estimated Revenue and Enrollment</u>			
Projected Enrollment (Headcount)*			
Full-time Students	200	250	300
Part-time Students	80	100	100
Income from Students			
Tuition	\$123,500	\$156,000	\$188,500
Extension Fund Fees	48,000	60,000	60,000
Funds Available from Other Sources (Federal, Private, Corporate, Foundation, etc.)	0	0	0

\*Indicate what portion of projected enrollment, if any, represents students transferring from other programs. Tuition and fee revenue should be based upon new enrollments only.

(See attached explanation page)

Use of Current Resources: Identify, describe, and estimate cost (prorated) of existing personnel and other resources which will be used in connection with this program. If existing personnel and resources are to be reallocated from other programs, indicate from where the resources will be diverted and what impact this action will have on any other activity within the institution.

	1985-86	1986-87	1987-88
Salaries	\$110,000	\$115,000	\$120,000
Equipment and Supplies	5,250	6,750	8,250
Total	\$115,250	\$121,750	\$128,250

Third Year

	Year 1 19 <u>85</u> -86	Year 2 19 <u>86</u> -87	<del>First Year of</del> <del>Full-Operation-</del> 19 <u>87</u> -88
<u>Cost Summary</u>			
New Expenditures	\$ 7,500	\$ 14,350	\$ 38,350
Cost of Existing Resources	115,250	121,750	128,250
Total Program Cost	\$122,750	\$136,100	\$166,600

Joseph F. Jurell  
 Signature of Institutional Fiscal Officer

VP Admin Affairs  
 Title

12/13/84  
 Date

Catherine M. Bassetta  
 Signature of Chief Fiscal Officer (for  
 system, if different than above)

Ex. Officer for Finance  
 Title + mgmt.

12/13/84  
 Date

Central Connecticut State University

Bachelor of Science, Management Information Systems

Explanation of Fiscal Statement

Estimated New Expenditure

.75 part-time position teaching MIS courses in year one; doubled for year two. Employment of full-time faculty member teaching eight courses in 1987-88 reduces necessity of part-time employment to only six courses.

Estimated Revenue and Enrollment

Three categories of students are included in the projected enrollments:

- Students enrolled at Central for the first time - New students (N)
- Students enrolled at Central the previous semester - Continuing Students (C)
- Students enrolled at Central who transfer from one program to another - Internal Transfer (IT)

<u>Projected Enrollments</u>	1985-86	1986-87	1987-88
	<u>N + C + IT</u>	<u>N + C + IT</u>	<u>N + C + IT</u>
Full-Time Students	70 + 120 + 10=200	60 + 180 +10=250	60 + 230 + 10=300
Part-Time Students	30 + 50 + 0= 80	30 + 70 +0=100	20 + 80 + 0=100

Income from Students

Tuition computed at the 1984-85 rate of \$650 per full-time student.

Extension Fund Fees computed at rate of 10 credits per student at \$60 per credit.

Only new and continuing students were used to compute tuition and fee revenue.

Use of Current Resources

Of the total School of Business resources, a percentage based upon the number of students/majors enrolled in the MIS specialization will be reallocated specifically for this program each year. In the case of teaching faculty, the salaries of the full-time members of the MIS Department will be charged completely to that department. The rates for equipment and supplies are as follows:

7 percent (1985-86), 9 percent (1986-87), and 11 percent (1987-88).

Since the MIS option has been operating for a number of years, there will be no additional or significant impact on the remainder of the Marketing degree program when these percentage amounts of the resources are merely "officially" reallocated to the MIS degree program. The four full-time faculty members will continue to have a full teaching load assignment devoted exclusively to MIS courses.

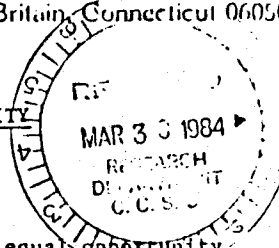




# CENTRAL CONNECTICUT STATE UNIVERSITY

1615 Stanley Street • New Britain, Connecticut 06050

CENTRAL CONNECTICUT STATE UNIVERSITY  
AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY  
POLICY STATEMENT



Central Connecticut State University is committed to equal opportunity in employment and education. It is not acceptable for certain groups of people to continue to be limited by discrimination, from employment and educational opportunities.

The University has the responsibility to ensure the full realization of equal employment opportunity, the employment and promotion of qualified individuals without regard to race, color, religion, sex, marital status, age, national origin, ancestry, veteran status, or the presence of any sensory, physical or mental handicap. Equal employment opportunity is considered by Central to include all aspects of employment: application, recruitment, job qualifications and specifications, job restructuring, interviewing procedures, hiring, orientation programs, compensation, benefits, leave, social and recreational programs, training, career development and upward mobility, promotion, evaluation and counseling, transfer, separation and termination.

In order to fully realize equal employment opportunity, the Central Connecticut State University Affirmative Action Plan includes both our present degree of equal employment opportunity attainment and the constant affirmative action efforts necessary to recruit, employ, and promote qualified members of selected groups formerly excluded. The progress of our affirmative action efforts will be reflected in the increased representation of qualified minorities, women, veterans, and the handicapped in all job groups within our work force.

Responsibility for compliance with federal and state affirmative action and equal employment opportunity laws, executive orders and regulations rests with the President. The President has appointed Dr. Archie Savage (Admin. 214, 827-7495) as Director of the Office of Affirmative Action and the Compliance and Non-Discrimination Officer. The President has designated Dr. Savage as the coordinator of investigations of alleged discrimination. Vice Presidents, Deans, Directors and Department heads are responsible on a daily basis, and will be held accountable, for the implementation of University policy and procedures regarding affirmative action and equal employment opportunity in their units. All members of our work force are expected to familiarize themselves with the policies of the University concerning these programs and to further the objectives of affirmative action and equal employment opportunity.

It shall be the responsibility of the Director of Affirmative Action to identify problem areas by organizational units and job groups; to establish, promote and encourage progress in meeting affirmative action goals; to ensure compliance with University policy concerning affirmative action and equal employment opportunity; and to furnish the President with an annual report of the compliance status in each reporting unit and the University as a whole.

Central Connecticut State University will continue to work cooperatively with appropriate federal and state agencies and community organizations which share its equal employment opportunity and affirmative action objectives.

March 1, 1984

Date

  
F. Don James, President