

MANAGEMENT INFORMATION SYSTEMS
PROPOSAL FOR CHANGE IN SPECIALIZATION

1. DETAILS

A. Title of the Proposal:

Specialization in Management Information Systems

B. Sponsor:

diane hamilton, Chairperson
Department of Management & M.I.S.

C. Scope or Size of the Program:

This program will affect all Business Administration students who are specializing in Management Information Systems. The current program graduates approximately 35 students per year. The demand in this field has been steady over the past several years.

D. Relationship to curriculum:

All courses indicated by the specialization are in addition to the general education and business core requirements.

E. Prerequisites or eligibility:

Any student accepted by the School of Business Administration and in good academic standing is eligible to elect Management Information Systems as his/her specialization.

F. Suggested time frame and scale of implementation:

These changes will take effect the fall of 1994.

G. Resource requirements:

The present faculty and microcomputer laboratories are sufficient to handle the curricular changes recommended herein.

2. RATIONALE

The specialization in MIS emphasizes the use of information in a business environment and includes extensive course work in computing. Over the past five to ten years personal computers have grown to become a very important component of most businesses. The MIS specialization at Rowan College is designed to prepare students for a career as end-user computing professionals, e.g., information center staff. Two recent studies¹ have surveyed the business community in general and MIS managers specifically and proposed the skills necessary for MIS majors in the coming years. The proposed changes herein address the skills needed according to this research.

3. ESSENCE OF THE SPECIALIZATION

A. Major goals of the program:

The goal of the MIS program at Rowan College is to prepare students for careers in the information processing field. To accomplish that goal students follow a curriculum which includes courses in general education, general business, and information systems. Below is a list of specific knowledge and skills which we hope to instill in the students.

- business communication and interpersonal skills
- business knowledge and skills
- PC packages
- problem solving
- fourth generation languages
- systems analysis and design
- decision support systems
- database concepts
- application programming languages
- documentation skills
- expert systems/artificial intelligence
- information systems planning
- management skills
- systems implementation
- telecommunications and networking
- CASE methodologies and productivity aids
- dealing with the client/consultant relationship
- legal and ethical issues in computing
- general PC knowledge

1. The two studies are: Watson, Hugh J. et. al. (1990) Requisite skills for new MIS hires. Data Base 21 (1), 20-28; and Leitheiser, Robert L. (1992) MIS Skills for the 1990s: A Survey of MIS Managers' Perceptions. Journal of Management Information Systems 9 (1), 69-91.

B. Specific objectives of the program:

Listed below are the student learning objectives as derived from the program goals. Each objective is listed in terms of the degree of expertise which is expected from an MIS graduate.

- Students will exhibit good business communication (writing and speaking) and interpersonal skills.
- Students will understand the common body of knowledge in business.
- Students will be competent in the use of PC packages, specifically the following types: word processing, electronic spreadsheets, database management systems. Students will also be competent in the use of at least one PC operating system.
- Students will be able to solve complex problems.
- Students will be exposed to fourth generation languages.
- Students will be competent in the analysis and design of information systems.
- Students will have an understanding of Decision Support Systems.
- Students will have experience applying database concepts.
- Students will have experience in at least one third generation programming language.
- Students will be able to prepare accurate and complete system documentation.
- Students will be able to program using an expert system shell.
- Students will have exposure to the concept of information systems planning.
- Students will have an understanding of general management skills.
- Students will have an understanding of what is involved in systems implementation.
- Students will be able to use a local area network.
- Students will have an exposure to CASE methodologies or other productivity aids.
- Students will understand the consultant-client relationship.
- Students will be aware of the legal and ethical issues in computing.
- Students will have general PC knowledge.

C-1. Structure (Present)

All MIS students are required to take the following eight courses (24 credits total):

Principles of Systems Design
Decision Support Systems
Design of Database Systems
Structured Programming in COBOL
Seminar in Management Information Systems
Organizational Change and Development
Statistics II
Structured Programming in Pascal (to be renamed Computer Science & Programming)

There are two sets of restricted electives. Each MIS student selects one course from Category A and one course from Category B (6 credits total).

Category A: Managerial Finance
Cost Accounting
Principles of Management Science

Category B: Advanced Programming in COBOL
Data Structures and Algorithms

C-2. Structure (Proposed):

All MIS students will be required to take the following eight courses (24 credits total):

Principles of Systems Design
Decision Support Systems
Design of Database Systems
Structured Programming in COBOL
Seminar in Management Information Systems
Organizational Change and Development
Structured Programming in Pascal (to be renamed Computer Science & Programming)
Information Systems Planning and Network Management (new course)

There will be one set of restricted electives from which students, with the help of their advisor, will select two courses (6 credits total). This list of restricted electives follows.

From the Accounting & Finance Department: Intermediate Accounting I & II, Cost Accounting, Managerial Finance, Investment/Portfolio Analysis

From the Management & MIS Department: Management of Human Resources, Principles of Training and Training Management, Supervised Internship, Principles of Management Science, Independent Project, End-User Computing: business applications, End-User Computing: electronic spreadsheets, End-User Computing: database management

From the Computer Science Department: Computing Environments, Data Structures & Algorithms, Advanced Programming in COBOL, Programming in Ada, Data Communications & Networking

From the Philosophy/Religion Department: Introduction to Symbolic Logic, Business Ethics

From the Communications Department: Occupational Writing

From the Speech/Theater/Dance Department: Interpersonal Speech Communications

From the Geography Department: Introduction to Geographic Information Systems, Advanced Geographic Information Systems

From the Psychology Department: Human Factors

D. Administration

The added Information Systems Planning and Network Management course can either be handled by the current MIS faculty. At the current level of enrollment only one section per year will be required.

4. RESULTS OF CONSULTATION

- A. A written consultation was requested of the chairperson of each department affected by this proposal. Responses were received from: Carol Welsh - Accounting & Finance, Don Stone - Computer Science, Diane Ashton - Philosophy/Religion, David Cromie - Communications, Phillip Graneto - Speech/Theater/Dance, Dick Scott - Geography, and Eleanor Gaer - Psychology. These responses are attached. The proposal has been approved by the faculty in the Department of Management & MIS and the School of Business Administration.

5. NEW COURSES

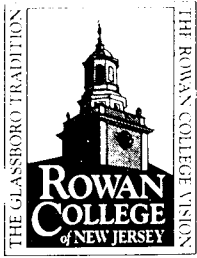
Included with this proposal is a new course proposal for the course in Information Systems Planning and Network Management.

To: HAMILTON
From: ELAN/WELS.335
Date: 20 Sep 93 13:31:45 EST
Subject: Specialization in Management Information Systems
: wels2835

I have reviewed the proposal for the revision of the MIS specialization in light of the impact on the Department of Accounting and Finance. The specifications under restricted electives category A of Cost Accounting and Managerial Finance would minimally impact our department given the number of sections of these courses currently being offered.

It should be noted that Cost Accounting I should be specifically noted and that this course is only offered in the Fall semester of each academic year.

Sorry for the delay in responding on this issue.



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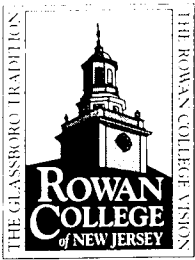
Computer Science Department

To: Diane Hamilton, Chair, Management and M.I.S.
From: Don Stone, Chair, Computer Science DCS
Date: July 12, 1993
Re: Revision of M.I.S. specialization

I have reviewed the proposals which you sent to me last month relating to the revision of the M.I.S. specialization.

The Computer Science courses that are in your proposed new set of restricted electives for M.I.S. students are appropriate for someone expecting to pursue a career in M.I.S. Note that the course Programming in Ada has Data Structures and Algorithms as a prerequisite.

Your proposed new set of restricted electives is considerably larger than the current set of restricted electives, and some of the electives in the new set seem more central to M.I.S. than others. What is your reaction to the idea of identifying these more central courses and requiring that at least one of the two electives be taken from that group? I would expect that the Computer Science courses Computing Environments and Data Structures and Algorithms would be in this central group.



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DATE: July 26, 1993

TO: Don Stone
Chair, Computer Science Department

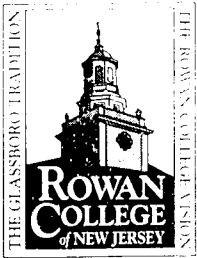
FROM: diane hamilton
Chair, Management & M.I.S. Department

RE: Revision of M.I.S. specialization

Thank you for your letter of July 12 with comments relative to our proposal for a change in the M.I.S. specialization.

I appreciate your comments regarding further restrictions on the M.I.S. electives. I hope you will understand, however, why we chose not to go that route. Our current program requires that one of each student's electives be taken from a small set of computer science courses. Our intention in this revision was to allow for a greater degree of freedom in the student's choice of electives. For example, a student with a specialized interest might elect to take Geographical Information Systems I and II. These two courses would afford them the opportunity to develop a greater skill than if they only had room to elect the first course in the sequence. You can be sure, however, that for students without particular career interests the two courses that you mention, Computing Environments and Data Structures & Algorithms, will be on the top of the list for advisors to recommend.

I also appreciate your enclosing the syllabus for your course in Data Communications and Networking. I like your suggestion that this course might serve our students well as a second course in networking. I'm concerned about the prerequisites, however. The objectives of the course are stated as "build on the foundations of Computer Architecture and Digital Design and Lab". Are these truly prerequisites? Or do you feel our students could handle the course without them?



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Psychology Department

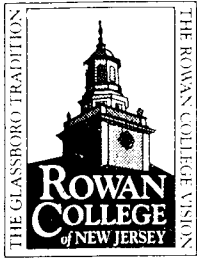
To: Diane Hamilton, Chairperson, Management and M.I.S.

From: Eleanor Gaer, Chairperson, Psychology EPG

Re: Revision of M.I.S. specialization

Date: August 20, 1993

I have reviewed the proposal for the revision of the M.I.S. specialization, as you requested. I support the proposed revision. Please be aware that the Psychology course, Human Factors, included as one of your restricted electives may not be offered every year.



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Philosophy and Religion Department

M E M O R A N D U M

To: diane hamilton
Chairperson, Management and M.I.S.

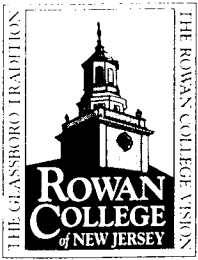
From: Dianne Ashton
Chairperson, Philosophy and Religion

Date: June 25, 1993

Proposal for revision of M.I.S. specialization

I have reviewed your proposal for the revision of the M.I.S. specialization and am pleased to see that you have included two of our courses, Introduction to Symbolic Logic and Business Ethics, in your list of restricted electives. I am sure that these courses will benefit your students. I see no difficulty in providing them as the courses are offered regularly each semester.

Good luck with your program revision.



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TO: Dr. Diane Hamilton, Chairperson
Management & M.I.S.

FROM: David Cromie, Chairperson *D.C.*
Communications Department

DATE: June 27, 1993

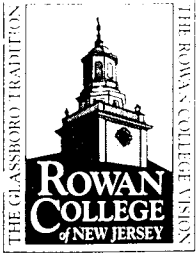
SUBJECT: Revision of M.I.S. specialization

Thank you for asking us to respond to your proposal for revision of the specialization in Management Information Systems insofar as one of our course comes into play as a choice on the restricted electives list.

We are pleased that you have listed Occupational Writing as one of the options on the restricted electives list for your revised specialization. We think this course is of great value to students about to enter the job market. Many of our graduates have written to say that this one course has provided them with exactly the kinds of skills and insights needed to begin a career and to help ensure success; it is highly practical and useful.

We offer Occupational Writing every semester—fall and spring—and we try to offer it in the evening as well as during the day. Also, we generally offer this course each summer with two sections listed during the first five-week session and one section during the second five-week schedule. In short, it is always available to students, and we welcome your students from M.I.S. We hope that a large number choose to enroll in this course.

If I can be of further help on this topic, please let me know.



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Speech/Theatre/Dance Department

TO: Ms. Diane Hamilton, Chair
Management & M.I.S.

FROM: Phillip A. Granato, Chair *Phil*
Speech/Theatre/Dance

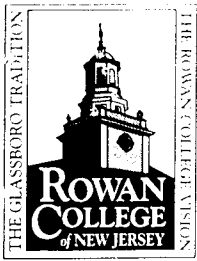
RE: Revision of M.I.S. Specialization

DATE: June 29, 1993

I have read the proposal for revision of the M.I.S. Specialization, and I applaud the changes which include a greater selection of courses in restricted electives. While it is unlikely that many M.I.S. students will elect Interpersonal Speech, we welcome the opportunity to provide Business students with what may become their favorite "irrelevant" college course.

PG/hc

encl.



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MEMORANDUM

TO: Diane Hamilton, Chairperson, Management and MIS

FROM: Dick Scott, Department of Geography and Anthropology *Dick*

SUBJECT: Proposal for Revised M.I.S. Specialization

DATE: June 18, 1993

I have reviewed your proposed revision for the M.I.S. specialization and am writing to offer my support for implementation of the revision. Inclusion of a course in networking in the required core of 24 credits seems entirely appropriate given the increasing importance of networked PCs in the business world. At the same time, I believe that changing from two categories of restricted electives to one will provide your majors with greater flexibility in tailoring their programs to career goals.

The inclusion of the two courses in geographical information systems will enable interested students to gain knowledge and skill in an area that is growing rapidly in the private sector. Firms such as Circuit City, Arbys Restaurants, and Federal Express use this new and exciting technology to assist in site selection decisions, vehicle routing, and other functions. Enabling your students to select these courses should serve to broaden their options upon graduation.