

Glassboro State College Senate Curriculum Committee

Approval Form

Proposal Title: EXPERT SYSTEMS FOR BUSINESS

Sponsor(s) DIANE HAMILTON Dept.: MGMT & MIS Ext. 6411

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change

(please name deletion or credit/title/catalog change)

Undergraduate

Graduate

3 Credit Hours

<p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>2/26/92</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p>_____ Dept. CC Chairperson</p> <p><input checked="" type="checkbox"/> Reviewed <u>3/6/92</u> Date</p> <p><u>Diane Hamilton</u> Dept. Chairperson</p>	<p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# <u>217200</u></p> <p>Proposal Received _____ Date</p> <p>GSC SENATE</p> <p>MAR 18 1992</p> <p>RECEIVED</p> <p><u>James McChesney</u> SCC Chairperson</p>	<p>Step 3 (School CC)</p> <p>Reviewed <u>April 2, 1992</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments:</p> <p><u>Thomas A. Michael</u> School Curr Comm Chairperson</p>
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Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed _____
Date

Signature Dean of School

Step 5 (SCC)

Open Hearing 4/14/92 Approved by Senate Curriculum Committee 4/14/92
Date Date

Returned to sponsor(s) for the following reasons:

Step 6 (Senate)

Presented to Senate 5/13/92 Approved Not Approved
Date

Notification to Executive Vice-President/Provost 6/1/92 [Signature]
Date Signature SCC Chairperson

Step 7 (Executive V.P./Provost)

Received _____

Date

If no, reasons are as follows:

Approved Yes No

Student credit hours _____

Faculty load hours _____

Equalized credit hours _____

Official copy and approval sheet filed _____
Date

Signature, Executive Vice-President/Provost

Registrar

Approved course description received 24 Aug 92
Date

Hegis Taxonomy and Course Number assigned 0702.510

B. Kelly for DB
Signature Registrar _____ Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

NEW COURSE PROPOSAL

1. DETAILS

- a. Course Title: Expert Systems for Business
- b. Sponsor: diane hamilton
Department of Management & Management Information Systems
- c. Course Level: graduate (MBA)
- d. Curricular effect: elective
- e. Prerequisites: A course in programming or equivalent, or permission of instructor
- f. Suggested time & scale of implementation:
To be offered on the same scale as other MBA electives, i.e. once every two years with the first offering Fall 1993
- g. Adequacy of present staff: adequate

2. RATIONALE

Expert systems are a recent entry in the information technology basket of opportunities for business. They can provide several benefits to an organization. They can increase efficiency, increase effectiveness, and provide competitive advantage. Expert systems can reduce time for decision making, improve training, document scarce or non-local expertise, and/or unite the expertise of different specialists

There is a limited number of electives in the MBA program. For this program to remain viable, sufficient electives must be offered to the students. This course was offered once as a special topics course and the enrollment was quite high. There is a large demand for electives in the Information Systems area, according to students' comments.

3. ESSENCE OF THE COURSE

a. Objectives of the course in relation to student outcomes:

The expected outcomes of the course are for students to achieve a thorough understanding of Expert Systems, their benefits and their limitations. At the completion of the course, they will know how to acquire, represent and program knowledge using VP - Expert (or some other Expert System shell program) and they will have developed a working Expert System for some real business application. The course format is designed to achieve these objectives. When this course ran as a special topics course, the objectives were all attained.

b. Topical Outline/Content:

Introduction to Expert Systems

Selecting a Business Problem for Expert System Development

Knowledge Acquisition Methodologies: Interviews (Tutorial, Teachback, Unstructured, Structured), Method of Familiar Tasks, Protocol Analysis, Semantic & Systemic Grammar Networks (KR), Card-Sort Methods, Multidimensional Scaling, Repertory Grid Analysis, Limited-Information Tasks, Constrained-Processing Tasks, Method of Tough Cases

Knowledge Representation Methodologies: Knowledge Matrix, Rule Table, Production Rules, Frames

Knowledge Validation

Knowledge Verification

Why Expert Systems Fail

Liability for Expert Systems

VP-Expert (Word Tech Software): Running a Consultation, The Inference Engine, The Command Structure, Using the VP Expert Editor, Components of the VP Expert Knowledge Base, VP Expert Syntax Rules, Confidence Factors in VP Expert, Important Statements in VP Expert, Important Clauses in VP Expert

Introduction to Neural Networks

c. Evaluation and grading of students:

I would expect to use the same procedure as was used when the course was offered on a special topics basis:

- 25% Participation in class
- 25% Expert System Benchmark Documentation
- 30% Final Programmed Expert System, presented orally
- 20% Final Exam

d. Course evaluation:

Traditional student evaluations would be collected in this course.

4. RESULTS OF CONSULTATION

- a. Consultations were requested from the MBA Advisor and the Chairperson of the Computer Science Department. The written responses are attached. All recommendations made by the Computer Science chair were incorporated into this proposal.

0702.510

CATALOG DESCRIPTION

EXPERT SYSTEMS FOR BUSINESS

3 credits

Prerequisite (0701.102 or permission of instructor)

This course will expose students to the use of artificial intelligence systems in business. Students will study the theory of Expert Systems in detail, and will select a real business problem for development into a working Expert System. The programming will be accomplished using an Expert System shell.



GLASSBORO STATE COLLEGE

School of Business Administration
MBA Office

Glassboro, New Jersey 08028-1748
(609) 863-5161

February 12, 1992

To: Diane Hamilton *ADH*

From: Robert D. Lynch, MBA Program Advisor

Subject: New Course Proposal, Expert Systems for Business

I have reviewed your proposal for the graduate course, Expert Systems for Business and agree that this course would be an excellent addition to our MBA Electives. I am especially supportive of such a course because it is an ideal course for our own MBA students and at the same time would be a suitable elective course for graduate students in other fields where expert systems applications are being used.

I had many favorable comments from students who took this course when it was offered as a "Special Topics" course. I recommend its acceptance as a regular course since the "Special Topic" subjects may be offered only every three years.

cc: Robert Fleming, Acting Dean
School of Business Administration



GLASSBORO STATE COLLEGE

Computer Science Department Glassboro, New Jersey 08028-1767 (609) 863-6044

Memo To: Diane Hamilton
From: Seth Bergmann → B
Nancy Tinkham nht
Date: February 26, 1992
Subject: Course Proposal on Expert Systems for Business

Thank you for consulting with me on your course proposal titled "Expert Systems for Business". Since Nancy Tinkham teaches our Artificial Intelligence courses, I have invited her to work on this response with me. Our general reaction is that we would like to support this proposal, and that the course has the potential to be a strong addition to our MBA program.

We would like to make a few suggestions which are intended to improve and/or clarify the proposal. We think it is important that the course title agree with the rest of the proposal, even if it means repeating a concept which may be self-evident to you.

The course title, "Expert Systems for Business" could be more clearly reflected in the Objectives and Topical outline. For example, in the Objectives instead of saying "they will have developed a working Expert System for some real application", you could have said "they will have developed a working Expert System for some real business application". Also, the topical outline is worded in a similarly general way; your second topic could have been "Selecting a Business Problem for Expert System Development".

What percentage of the course is devoted to neural networks? They are not mentioned in the course Objectives, and they appear to be a small part of the course in the Topical Outline. (Listed last, neural networks might not be covered at all if time runs out). However, in the catalog description one gets the impression that neural networks constitute a significant part of the course.

We also felt that your Rationale could be improved. It seems that you are saying that the rationale for this course is simply that students want to take it. Why is it important that business students know something about A.I. techniques? Are these techniques used in making business decisions? These questions might have obvious answers for you and us, but perhaps not for members of the curriculum committee.

Once again, we offer support for this course and feel that with a few changes in the proposal it will be a positive addition to the college curriculum.