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Faculty Senate Curriculum Committee

APPROVAL FORM

Rev: 5/82

Proposal Title: ADVANCED BASIC

Sponsor(s): Fran Masat (Initiator) Dept.: Mathematics & Computer Science

Professional Studies Instructional Computing Task Force

and Mathematics/Computer Science

Check one: Course Specialization Concentration Achievement Certificate

Minor Change Major Program
(please name: deletion or credit/title/catalog change)

Certification Program Undergraduate Graduate Credit Hours

Step 1 (Department)

Approved 2/25/83
date
 Not Approved
Seth Bergmann
Dept. CC Chairperson

Reviewed 2/24/83
date
James J. Swan 3-2383
Chairperson, TFCC Date
F. S. Masat
Chairperson, Dept.

Step 2 (Receipt)

SCC# 82-83-46
Proposal Received 4/6/83
date

Shirley G. Ody
Chairperson, SCC

Step 3 (Division CC)

Reviewed April 21 83
date
 Approved
 Not Approved

Comments:
James J. Swan
Chairperson, Div. Curr. Comm.

Step 4 (Academic Dean)

Reviewed 4/22/83
date
4/22/83

Comments:
James J. Swan
Dean Roman
Signature, Dean of Division

Step 5 (SCC)

Open Hearing Date: 5/3/83 Approved by Senate Curriculum Committee 5/3/83 (date) ^{BAB}

Returned to sponsor(s) for the following reasons:

Step 6 (Faculty Senate)

Presented to Faculty Senate (date): 5/13/83

Approved
 Not Approved

Notification to Vice-President Academic Affairs (date): 5/26/83

Shirley G. Ody
Signature: SCC Chairperson

Step 7 (Vice-President for Academic Affairs)

Course received 5/31/03 (date)

Course approved Yes X No

If no, reasons are as follows:

Student credit hours 3

Faculty load hours 3

Equalized credit hours 3

Official copy and approval sheet filed 6/30/03 (date)

Signature _____
(Vice-President for Academic Affairs)

Registrar

Approved course description received _____ (date)

Hegis Taxonomy and Course Number assigned

Signature _____ (Registrar) _____ (Date)

Notification forwarded: Senate Curriculum Committee Chairperson, Department Chairperson(s), Academic Dean(s), Registrar, Sponsor(s)

COURSE PROPOSAL

1. DETAILS

- a. Title of course: ADVANCED BASIC
- b. Initiator: Dr. Fran Masat
Sponsors: Professional Studies Instructional Computing Task Force and Mathematics/Computer Science
Administration: Mathematics/ Computer Science
- c. Level: Graduate - 3 S.H.
- d. Curricular effect: Restricted elective in the Post Baccalaureate Achievement Certificate in Computers in Education. Free elective for other graduate students.
- e. Prerequisites: Computer Science I, Introduction to Computer Science, or equivalent experience.
- f. Time frame: Spring 1984 and annually thereafter.
- g. Adequacy of resources: Sufficient staff, facilities, and library holdings exist. In the immediate future, additional software and microcomputers will have to be acquired.

2. RATIONALE

This course is unique at the College and is a response to the growing demand for a computer programming class in BASIC that goes beyond that of the introductory level. Many school teachers, both K-8 and 9-12, have repeatedly requested a course of this nature. Moreover, there are no signs of the need for training decreasing. It will provide an important area of skill development for both Instructional and Administrative applications of the Post Baccalaureate Achievement Certificate in Computers in Education. Also, M.A. students in many areas will find this course appropriate to their studies.

3. ESSENCE

- a. Objectives of the course: At the end of the course, students will be able to:
 1. Design programs using "structured" BASIC
 2. Use and demonstrate advanced notions such as user-defined functions, file generation, ASC and CHR\$ functions, matrix operations, and screen graphics

3. Use and demonstrate disk operating systems
4. Design, write, run and document Advanced BASIC programs for their own use.
5. Incorporate machine-language subroutines

b. Topical outline

1. Functions: DEF, CHR\$, VAL, MID\$, RND
2. Subroutines and structured programming
3. Matrix and vector operations and input/output
4. Data files: Sequential and random access
5. Microcomputer graphics
6. Disk operating systems
7. Systems commands and library functions
8. Machine-language procedures in BASIC
9. Applications: classroom management, subject matter areas, administrative record keeping, or other fields of interest to the student

c. Evaluation and grading

Three hour exams will count for 60% of the course grade; project(s) will count for the remaining - 40%.

4. CONSULTATIONS: Professional Studies Instructional Computing Task Force

5. ADDITIONAL INFORMATION

a. Possible texts

STRUCTURED BASIC AND BEYOND, by Wayne Amsbury, Computer Science Press, 1980.

PROGRAMMING WITH BASIC, 2 ed., by Byron Gottfried, Schaum, 1982.

b. Resource materials

80 Micro; Creative Computing; The Computing Teacher; The Mathematics Teacher; COMPUTERS IN EDUCATION; THE COMPUTER IN THE SCHOOL; MICROCOMPUTERS AND THE THREE R'S; BASIC FOR MICROCOMPUTERS.

6. CATALOG DESCRIPTION

Advanced BASIC

3 S.H.

Prerequisites: Computer Science I, Introduction to Computer Science or equivalent experience.

Beginning with a brief review of elementary BASIC, the course covers functions, structured programming and subroutines, files, graphics, matrix operations, system and library functions, disk operating systems, machine-language extensions, and applications.

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