NEW – REVISED - DELETED Course Submission and/or Requests For Inclusion in General Education

Department Information Technologies
Course Title, Prefix and Number Pascal Programming, CMP-229
Submitted By Bonnie A. Murphy
New***ChangeX Deletion***Inclusion in General Education
* NEW course submissions require a COURSE INFORMATION OUTLINE attachment and NJ TRANSFER TEMPLATE.
**CHANGED courses require the EXISTING COURSE OUTLINE with CHANGES IN RED attached.
***Any NEW OR REVISED course that is submitted for inclusion in the GENERAL EDUCATION COURSE LIST must be reviewed by the GENERAL EDUCATION COMMITTEE, which reviews all proposed General Education Courses for their compliance with the General Education Guiding Principles.
Detailed Description of Changes/Addition:
This course is being deleted because it has not been offered for quite some time.
Rationale for Addition/Deletion/Change: Be specific. If these changes/additions/deletions require approval from an external accrediting agency or an advisory committee, include such approval.
No longer current or offered. Datatel status should be changed to O.
Departments or programs affected by this change and description of effects to those programs.
No other departments will be affected by the deletion of this course.
APPROVALS ()
Department Chairperson <u>famunphy</u> Date <u>3/7///</u>
Division Dean Date 4/26/11
General Education Committee Date (if necessary)
Chair of Curriculum Committee Date Date (Reviews all submissions with Vice President of Academic Affairs before bringing them to the Curriculum Committee).

DUS 8/3/17

County College of Morris COURSE SYLLABUS

Course: CMP229 Pascal Programming

Semester: Spring, 1994

Instructor: Mrs. Pauline E. Pike

Office: HT208

Telephone: 201 - 328-5774 Office Hours: Tuesday, Wednesday

11:00 a.m.-12:30 p.m.

Course Materials:

. Textbook: TURBO PASCAL (4th Edition)

by Elliot B. Koffman

. 1 3 1/2 inch Double Sided Double Density Disk

Grade Determination:

2 Tests worth a total of	40%	(100 points each test)
1 Final Exam	30%	(150 points final exam)
5 Programming projects	30%	(30 points each project)
	====	
	100%	

Grading Scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=0-59%

Tests:

There will be no make-ups on tests, although in special circumstances you may arrange to take a test <u>prior</u> to the test date. If you miss a test, the final will count as itself and also in place of that missed test.

Projects:

There will be a due date given for each project. You may hand in projects after the due date, but the grade will be lowered 10% for each week the project is late.

Course Objectives:

- 1. Students will develop and enhance their problem-solving skills.

 "A computer programmer is first and foremost a solver of problems."
- 2. Students will develop algorithms and data structures to solve problems.
- 3. Students will be able to code PASCAL programs that are very readable, well-structured, and that work!

12	Chapter 10.1-10.8 Arrays, strings, arrays of characters, processing strings and arrays	p. 521 - 1-9
13	Chapter 11 records, hierarchical records Chapter 12 Multidimensional arrays, array of records	p. 561 - 1-5 p. 618 - 1,3,5-9
14	Chapter 10.9 searching, sorting Chapter 13 recursion	p. 522 - 10 p. 663 - 1,3,4
15	Chapter 15.1-15.4 text files, binary files Chapter 16 pointers and linked lists	p. 747 - 1-2
16	Final Exam	

Note: Please see me if you have a learning disability or physical handicap, so that we can work out any accommodations that may be necessary.

Professor Wirth's Reason for Inventing PASCAL:

"The desire for a new language for the purpose of teaching programming is due to my dissatisfaction with presently used languages whose features and constructs too often cannot be explained logically and convincingly and defy systematic reasoning.It is my conviction that the language in which a student is taught to express his ideas profoundly influences his habits of thought and invention."

County College of Morris

COURSE INFORMATION OUTLINE

Cat. No.: CMP 229 Course: PASCAL

Lab Hours: 2 Credit Hours: 3 Class Hours: 2

Department Chairperson Approval: Major Approval Date: 10/5/87

Division Chairperson Approval: Major Approval Date: 11/11/87

- Prerequisite (Last course(s)): CMP $\bar{2}02$ or CMP 225
- 2. Co-requisite:
- 3 Textbooks: TURBO PASCAL, Gonzalez and Chiriboga, 1987 Ed., Franklin, Beedle, and Assocs.
- 4. Supplementary Books: Turbo Pascal Manual, Borland.
- Supplementary Materials: Diskette
- Statement of Course Objectives: 6.
 - 1. To learn Pascal syntax.
 - 2. To learn the Turbo editor.
 - 3. To learn structured programming techniques.
 - To relate syntax and structure to efficient Pascal programs.
- Statement of Relation to Curriculum(s): 7. Required course in scientific option (3500) and an elective in business option (3501).
- Catalog Course Description: Rules and syntax of Pascal language programming. Topics include problem-solving techniques and top-down design using procedure, data types, sequential control structure, selection control structure, repetition structure, nested logic, procedure with parameters, text and binary files, and array and record processing. The student is required to complete a series of laboratory and project assignments illustrating the above topics.

COURSE SYLLABUS

CLA	SS TOPIC	TEXT PGS/ DUE DATES	CLA	<u>SS</u> <u>TOPIC</u> Turbo	TEXT PGS/ DUE DATES		
1.	Intro to Pascal Pascal	Chp. 1	2.	editor, text files	Chp. 2		
3.	structure, Write	43-61	4.	Writeln Lab	н.О.		
5.	Read Readln	62-91	6.	Block Move Lab	H.O.		
7.	Arithmetic, Files	93-138	8.	Project I Create,	н.О.		
9.	Test #1		10.	Read Text File	н.О.		
11.	Top Down Design	Chp. 5	12.	Parameters	Chp. 5		
13.	Boolean Variables	Chp. 6	14.	Project II	н.О.		
15.	Repetition	Chp. 7	16.	Case Lab	н.О.		
17.	Functions	Chp. 8	18.	Functions	н.О.		
19.	Test #2		20.	Project III	н.О.		
21.	Records	Chp. 11	22.	Records (Cont.)	Chp. 11		
23.	Binary Files	н.О.	24.	Binary File Lab	н.О.		
25.	Dynamic Structures	Chp. 13	26.	Pointer Lab	н.О.		
27.	Recursion	276-279	28.	Recursion Lab	310-313		
29.	Test #3		30.	Review			
31.	Final Exam						

<u>DETERMINATION OF COURSE GRADE</u>

Number of Projects	4	counts	as	25	용	of	Grade
Number of Tests/Quizzes	3	counts	as	75	90	of	Grade
Final Exam X or Project		counts	as	<u>"</u>	ઇ	of	Grade
Attendance**/Class Participa	tion	counts	as		%	of	Grade

A = 100 - 90 B = 89 - 80 C = 79 - 70

D = 69 - 60 F = 59 - 0

COUNTY COLLEGE OF MORRIS COURSE INFORMATION OUTLINE

CoursePascal Programming Clinical	
Class Hours3Laboratory Recitation	Hrs1 Credit Hours3Course Fee\$40
Department Chairperson Approval	Tama Stabila Approval Date 10/8/97
Division Dean Approval	Approval Date 10/17/57
1. Prerequisite (Last Course or Co	urses)CMP113
2. Co-requisiteNone	
3. Textbooks	
Understanding Turbo Pass West Publishing Co., ISBN	cal: Programming and Problem Solving, Douglas W. Nance N 0-314-02812-9
4. Supplementary Books	
None	
5. Supplementary Materials	
One 3 ½ inch floppy disk	

6. Specialized equipment, supplies, facilities, for classes limited by enrollment or restricted by accreditation and/or equipment limitations. (information will be used to determine differential funding category).

This course requires specialized equipment with limited life cycle of one to five years. The equipment is expensive, subject to rapid obsolescence, and has high maintenance costs. The excess contact hours result from a catalog-stated requirement that students must spend additional time in a laboratory setting.

- 7. Statement of Course Objectives
 - Develop and enhance a student's problem-solving skills
 - Develop algorithms
 - Use structure charts, flowcharts and pseudo code to outline solutions
 - Code Pascal programs that are very readable, well-structured, and that work
- 8. Statement of Relation to Curriculum(s)
 - Elective in 3500 Scientific Programming Option
 - Elective in 3501 Business Programming Option
 - Elective in 3502 Microcomputer Option

9. Catalog Course Description (Please include when course will be offered --Fall, Spr., Sum., etc.)

This course stresses efficient coding and advanced programming techniques for students already familiar with the elementary syntax of Pascal. Topics include problem-solving techniques and top-down design using procedures and functions with parameters, data types, text and binary files, recursion and recursive data structures and array and record processing. The student is required to complete a series of laboratory and project assignments utilizing the above techniques.

Fall, Spring, and Summer, evening

Cat. No. CMP229

10. Course Outline

- Course Introduction
- Introduction to Pascal
- Output Statements
 - · Variables and Constants
 - Data Types
 - Formatting Output
- Input Statements
- Arithmetic and Assignment Statements
- Pre-defined Functions
- Outlining Solutions
 - flowcharting
 - pseudo-code
 - structure charts
- Functions and Procedures
- Selection code
 - Boolean type
 - Conditional expressions
 - If then, If then else statements
 - Nested Ifs
 - Case statement
- Iteration code
 - For loops
 - While loops
 - Repeat Until loops
- Text Files
- Enumerated Data Types and Subranges
- Arrays
 - One-dimensional arrays
 - Searching techniques
 - Sorting techniques
 - Arrays of Strings
 - Multidimensional arrays
 - Arrays of records
- Recursion
- Pointer Variables
- Linked Lists