CIS 130 Basic Programming

(4 credit hours)

Instr: Ram Raghuraman **Office T2031**
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Course Prereq cis 122 & Math 098 Office Hrs: MW 11.30-1.30PM

Course (catalog description):

An introduction to computer programming in the BASIC (Beginners All Purpose Symbolic Instruction Code) language. This course is designed to teach problem analysis, program design and programming in the Q BASIC language. Students use microcomputer-based programming environment. **Prerequisites: CIS 122 and MATH 098 or equivalents, or consent of department.**

Requires Text Book: Microsoft Basic Using Modular structure by Julia Case Bradly

Course Objectives:

Course Content Outcomes

1. *Identify basic computer systems concepts;*
2. *Plan a problem for programming;*
3. *Create a flowchart and write pseudocode for a programming problem in BASIC;*
4. *Identify and utilize BASIC command statements with appropriate programming formats, such as*

INPUT-LET-PRINT, DO-LOOP, PRINT USING, IF-THEN, IF-THEN-ELSE, READ/DATARESTORE, SELECT CASE, AND FOR-NEXT;

5. *Identify and utilize order of operations within programming statements;*
6. *Create and utilize subroutines;*
7. *Create and utilize counters and accumulators;*
8. *Create appropriate output formatting;*
9. *Discuss structured programming concepts and identify control structures;*
10. *Create internal and external program documentation;*
11. *Discuss top-down programming concepts;*

12. Discuss program testing and validation;

13. Create control break logic within programs;

14. Use data validation;

15. Create text or color graphics and music into a program;

16. Create program menus;

17. Use numeric and user-defined functions and perform random number generation;

18. Create, search and sort arrays;

19. Use external file-transaction processing on sequential and random data files.

20. Use subprograms and functions in a program

Last Day to Withdraw: please check your registration

Book Information: Quick Basic and Qbasic Using Modular Structure Alternate edition with Visual Basic By Julia Case Bradly
ISBN-10: 0256207976

Pl note the book is available thru book store.

GRADING:

Homework Assignments 150

4 quizzes (4*25)	100	400 – 450	A
Midterm - Written 50		**350 – 399**	**B**
Projects 50	**100**	**300 - 349**	**C Finals - Written 50**
	264 -- 299 D		
Projects 50	**100**	**<264**	**E**
Total	**450**		

Computer Lab Hours: Monday thru Friday 8am-10pm
Saturday 8am-4pm

Please check at north campus computer labs for their times

COURSE POLICIES

Examination Policy: No quiz make-ups are allowed. All due on or before the due dates

Cheating Policy

Students are expected to uphold the school's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work. Students shall be guilty of violating the honor code if they:

1. Represent the work of others as their own.
2. Use or obtain unauthorized assistance in any academic work.
3. Give unauthorized assistance to other students.
4. Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
5. Misrepresent the content of submitted work.

The penalty for violating the honor code is severe. Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

Disabilities Policy

In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to "reasonable accommodations." Please notify the instructor during the first week of class of any accommodations needed for the course.

ACADEMIC INTEGRITY: It is expected that students in this course will maintain the highest standards of academic integrity. Anyone involved in dishonesty—i.e. plagiarism, granting or receiving assistance on exams, etc.—will minimally receive a failing grade on the assignment and, at the instructor's discretion, may possibly receive a failing grade in the course. If you have any questions about how and when to cite references, please ask for clarification before submitting written assignments. Intellectual honesty and integrity are essential attributes of an educated person. (See the College Catalog and/or Student Handbook for further information on academic misconduct.)

RESPONSIBLE USE POLICY: Students are responsible for knowing and following the terms and conditions of JJC's p**olicy for "IT Policy for Responsible Use**." This policy may be found online at http://www.jjc.edu/about/administration/board-of-trustees/Pages/divisionx.aspx as well as in the College Catalog, Student Handbook, and posted in computer labs on campus.

SEXUAL HARASSMENT: Since learning is best achieved in an environment of mutual respect and trust, the college has adopted a clear and firm policy prohibiting sexual harassment. Even though this is an online class, sexual harassment can, nonetheless, occur. Such conduct will not be tolerated in this class, and victims are encouraged to report any unwelcome sexual advances to appropriate school authorities. (See the College Catalog and/or Student Handbook for more information.)

ACADEMIC ASSISTANCE: In addition to the assistance provided by your instructor, the Academic Skills Center provides a variety of academic services on Main Campus in J-2013. For example, some students may wish to schedule appointments with tutors, who are available at no cost to provide academic assistance. Information regarding the services of the ASC is available at http://www.jjc.edu/services-for-students/academicresources/academic-skills-center/Pages/default.aspx or by phone at (815) 280-2284.

SPECIAL NEEDS: In accordance with college policy, students with a documented disability for which special arrangements or accommodations may be needed should contact their instructor and/or the office of Student Accommodations and Resources (StAR) in J- 2025 at their earliest convenience to discuss how their educational needs can best be met. The StAR office provides an array of academic support services to students with documented physical or learning disabilities, to students with limited English proficiency, and to students enrolled in career and technical majors who are at risk academically. For more information regarding StAR's services, visit http://www.jjc.edu/services-for-students/disabilityservices/pages/default.aspx or call (815) 280-2230.

TECHNICAL REQUIREMENTS: Internet Access (broadband preferred); Microsoft Internet Explorer version 8 or 9 Firefox version 3.6 - 7, basic Websurfing and computer skills; word processing (Microsoft Word strongly recommended); **NOTE**: If you are an AOL or YAHOO! customer and use their browser, you will have difficulty using ANGEL. It is recommended that AOL and Yahoo! users

connect to the Internet with AOL/Yahoo as usual, then minimize the AOL browser screen, open one of the recommended Web browsers, and connect to your course site.

Please keep in mind that Google's Chrome web browser as well as Apple's Safari browser are not compatible or supported at this time because there are features of iCampus that do not work properly with them.

TECHNICAL SUPPORT: For technical assistance, contact the 24/7 support center at www.jjc.edu/help where you may find a solution to your problem, as well as support through chat and e-mail. Support technicians are available by phone 24 hours a day, 7 days a week, 365 days a year to help you at 1-866-2813638. Personal face-to-face help is available in the iCampus Technology
Center for Teaching & Learning in Room J-4019 on the main campus from Monday through Thursday, 8am to 8 pm, and on Fridays from 8am to 4:00pm. Help is available in the Tech Center either on a "drop-in" basis or by appointment by calling (815) 280-2481 or by email atiCampusTechCenter@jjc.edu.

WITHDRAWAL POLICY: If a student determines that he/she will be unable to complete the course, it is the student's responsibility to initiate procedures leading to a formal withdrawal ("W") in order to avoid a failing ("F") grade in the course. To receive a "W" grade, a student must withdraw before the deadline established by the college. Contact the Registrar's Office at (815) 744-2200 for further information on withdrawal procedures and deadline dates. It is the student's responsibility to obtain the necessary withdrawal forms if he/she decides not to complete the course. The instructor will recommend withdrawal for those students before midterm and may recommend withdrawal of a student at any point in the semester for poor academic performance or for cheating.

INCOMPLETE GRADES: Incomplete (I) grades and deadline extensions are not options in this course. Students are strongly encouraged to complete their work before deadlines approach. Waiting until the "last minute" to submit assignments and to take quizzes and exams is inadvisable since
deadlines are fixed and "I" grades are not awarded.

EXTRA CREDIT: Extra credit opportunities are available at the end of the course for 10 extra points.

DISCLAIMER: The course schedule and class procedures set forth in the syllabus are subject to modification in the event of extenuating circumstances beyond the instructor's control. Any changes to the syllabus will be announced in the online course site, and students will be given ample opportunity to adjust accordingly.

You are expected to do all your home works and exams on your own. Copying some ones will result in failing grade for both the parties.

Topical Outline

1 General computer systems concepts; Hardware and Software;
Program Planning; Using the QBASIC environment; Flowcharting and pseudocode

2 BASIC statements and program format; Modular programs with
calculations and strings; Variables and constants;
Elements of BASIC, orders of operations; Subroutines; INPUTLET-PRINT
3 Programs with Loops; DO-LOOP; Counters and accumulators; Output formatting; PRINT USING
4 Selection structures; IF-THEN, IF-THEN-ELSE;
READ/DATARESTORE
5 Structured programming concepts; Control structures;
Internal documentation; Top-Down Programming and
Testing
6 Report design and subtotals; Control break logic
7 Data validation; Interactive programming; String functions
8 Text graphics and music; Color graphics concepts
9 Menus; Select Case statement
10 Numeric functions; User defined functions Random number generation;
11 FOR NEXT loops
12 Introduction to functions and subprograms
13 Single-dimension arrays; Searching arrays
14 Two-dimension arrays; Sorting
15 External file- -transaction processing; Sequential files
16 Random files (optional topic)