Syllabus - Programming Logic and Design
ITSE 1429 / COSC 1309
Spring 2016

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Office hours: By appointment through chat – times to be posted once semester has started.

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Course Description:

This course is taught under several course numbers and sections. You are enrolled in either COSC 1309 - Programming Logic and Design, or ITSE 1429 - Programming Logic and Design. The 2x401 section number is a Brookhaven section and the 9xxxx section numbers mean you enrolled through the Dallas Colleges Online course numbers. All email notices will display ITSC 1429- even though you are enrolled in a different course and section (I had to pick one number, most of you are in ITSE 1429). If you are planning on transferring to a 4 year school, please be sure you are enrolled in the course number that they are accepting.

This is an introductory level course in problem solving to provide a solution designed for computer. Topics include problem analysis, flow, creating an algorithm, basic arithmetic and logic operations, fundamentals of datatypes in computer programs and the foundation structures used in writing programs. This course introduces you to programming logic and structures that apply to all programming languages such as defining variables, structure, loops and decisions.

Students should know that this is a challenging course which will require a lot of patience, discipline and diligence on your part. Fall and spring semester students should plan to spend 7-10 hours a week on this course. Summer semester students should plan to work on it almost every day.

ITSE-1429 Programming Logic and Design -- This is a WECM Course Number.
Course Description: Problem-solving applying structured techniques and representation of algorithms using design tools. Includes an introduction to programming, testing, evaluation, and documentation. (3 Lecture, 4 Lab.)

COSC 1309 (3 Credit Hours) Programming Methodology and Logic Design -- This is a Texas Common Course Number. Course Description: Introduction to problem solving in computer science. Topics include software theory, structured programming methodology, and representation of algorithms using pseudocode and graphical tools, and methods for testing, evaluation, and documentation. COSC 1309 will satisfy the Associate in Sciences degree general elective requirement. This course will fulfill degree requirements established by the colleges of DCCCD only if this course has been successfully completed and the date of completion does not exceed 10 years. (3 Lecture, 1 Lab.) Coordinating Board Academic Approval Number 1102015107

Course Prerequisites:
This course does not have a prerequisite. In general, students taking this course are expected to have a working knowledge of Windows and be able to use the World Wide Web. Students desiring a review should consult any general Introduction to Computers text.
Course Objectives:
1. Upon successful completion of this course, the student will be able to:
2. Understand basic methods for providing computerized solutions to business problems.
3. Know the basic analysis and design techniques for computer programming.
4. Understand the various data types used in programming.
5. Understand flowcharting and structured design techniques.
6. Understand the modular concept in programming development.
7. Be familiar with the sequence, decision, and loop structures.
8. Know the various array types and operations.
9. Be familiar with basic data structures such as arrays.
10. Be familiar with basic random and sequential file structures.
11. Be familiar with Object-oriented design techniques for programming.

Course Materials:

Textbook

Be aware that other DCCCD Campuses may teach this course using another book, and they most probably do not know about this one. Therefore, you should not visit other DCCCD Bookstores as this will help you avoid getting an incorrect text. Books can also be ordered online or as e-books from the publisher or other online sources. Books: these are available as paper books but may be available as electronic books from the Brookhaven bookstore or from the publisher.

Software:
We will be using Raptor Flowchart Simulator. This is a design tool that allow execution and testing of basis program logic. A download site is provided on eCampus, available for windows or MAC computers.

Student Contributions:
Experiences in this course include:
- Reading assignments.
- Testing - completing the quiz.
- Homework assignments – complete the flowchart using Raptor and pseudocode in a textfile.
- Communicating with your fellow students using the discussion forum

Course Evaluation (Grades) will be Competency Based Grading:

This section of the course will use “competency based grading”. This is designed to allow you the student to show that you have learned the required skills and can use those skills as they were designed.
What this means to you is that instead of having 2-4 assignments over the same skill set you will have at most two. Students will read the materials, review the examples, work through the practice problem from the book, turn in solutions for review (if desired), then complete the graded assignment which will be graded as described below.

The practice problem may be submitted for review and the instructor will provide feedback. This feedback will be comments so the student can verify they are on the correct track, but there will not be a grade posted for these practice problems. Students are encouraged to submit these practice assignments before submitting the graded assignment.

The student who submits the graded assignment reflecting a correct solution including all of the minimum required competencies will receive a grade of B. If the student includes the additional competencies then the student will receive an A grade. Students submitting work that does not meet the minimum required competencies or is not correct will receive a failing grade. Students may submit each graded assignment three times in order to show they have mastered these competencies, the instructor will provide comments with each graded submission.

This course is also set up so that you may work on two units of material at a time. This means you may work in units 1 and 2 but to continue to unit 3 you must successfully completed the work in unit 1, and then to progress to unit 4 you must have successfully completed the assignments from unit 2. This format is designed to allow the student to concentrate and master specific skills before moving on. This new format is designed to allow the student to show they understand the material without the need for multiple projects showing the same skills. Students may submit any book exercise for review as desired.

Student must complete at least 80% of the assignments successfully to receive an A or B grade. The Quizzes and completion of the additional competencies will be used to determine if a grade of A or B should awarded. Students who complete less than 80% of the assignments will receive a grade comparable to the grades received for the work completed, more details will follow.

General Course Policies:
1) This is not a self-paced class. Your work in this course should generally follow the Course Schedule, which includes due dates for assignments. Late assignments may be assessed a penalty of points for each day it is late. Please contact your instructor in case of illness or an absence which will take you "off-line" for a period of time. He will be happy to work with you and make schedule adjustments if necessary.

2) You are always welcome to ask questions of your instructor, and are encouraged to do so. You may also hold discussions with other students as well but you are expected to do your assignments alone. This course is, after all, more about learning programming than simply scoring a lot of points. You're only cheating yourself if you cheat.

3) You may NOT turn in an assignment more than 3 times for more credit. If the assignment is completely incorrect or unacceptable you will need to resubmit it. Remember that successfully completing 80% assignments is required to pass this course.
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4) Each quiz may be taken twice, the highest grade will be recorded.

5) Your online instructor may hold periodic Blackboard Collaborate sessions. Your participation is invited, but not required. During this time, you may discuss whatever you like with your instructor and other students present in the virtual classroom. Individual chats are available by appointment.

6) Your instructor will make every attempt to follow the general guidelines listed below to insure that you receive timely feedback when communicating. Times or days listed do not include weekends and holidays, and are the longest you may have to wait during the week. In many cases you will actually get a response in less time.
   o Student questions/comments/problems sent via E-Mail - reply within 48 hours
   o Student questions/comments/problems sent via phone message – reply within 48 hours (not sat/sun ) please use email for weekend questions
   o Assignment submissions in e-campus - grade posted and e-campus reply within one week after due date in most cases. It may vary a bit depending on the assignment.

7) All of your coursework must be completed by the last course day (as noted in the Course Schedule). Your instructor must submit your final course grade to the Brookhaven Registrar on the next day, so it will do you no good to submit work or take a test after that point.

Instructor’s Right to Modify: The instructor has the right to add, delete or revise segments of the course syllabus.

FERPA: The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. More information about the FERPA guidelines is available online in the college catalog.

Financial Aid Certification of Attendance:

You must attend and participate in your on-campus or online course(s) in order to receive federal financial aid. Your instructor is required by law to validate your attendance in your on-campus or online course in order for you to receive financial aid. You must participate in an academic related activity pertaining to the course such as but not limited to the following examples: initiating contact with your instructor to ask a question about the academic subject studied in the course; submitting an academic assignment; taking an exam; completing an interactive tutorial; participating in computer-assisted instruction; attending a study group that is assigned by the instructor; or participating in an online discussion about academic matters relating to the course. In an online class, simply logging in is not sufficient by itself to demonstrate academic attendance. You must demonstrate that you are participating in your online class and are engaged in an academically related activity such as in the examples described above.

COLLEGE POLICIES

The policies governed by Brookhaven College can be found by entering the following website on the address line of your favorite browser. This covers items such as (but not limited to) drop add policy, religious holidays, financial aid, repeating course, international student restrictions, ADA policy, academic integrity and grades.

http://www.brookhavencollege.edu/about/vpi/pages/syllabus-addendum.aspx
The available services provided by Student Life can be found by entering the following website on the address line of your favorite browser. Please refer to this page for information about a large number of student issues.  http://www.brookhavencollege.edu/studentsvcs/Pages/default.aspx

ONLINE SOCIAL MEDIA

The computer information technology department at Brookhaven College has a presence on LinkedIn, Instagram and Facebook. Search for us on Facebook by entering “Brookhaven College Computer Information Technology” to see what is new with our area.