COURSE SYLLABUS

Course title: MATH/CIS 2713 – Introduction to Computational Science

Instructor: Tim Curry
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Office hours: **MWF:** 8:00am, 9:30am, 11:30am, 12:30pm **TR:** 9:30am, 12:30pm

Text: Java Programming: From Problem Analysis to Program Design (Fourth Edition) -- D.S. Malik; *Course Technology (2010).*

Software: **Java SE Development Kit 6; jGRASP 1.8.4; Eclipse SDK3.2.1**
(all included with textbook and as free downloads)

Course description:

Presents an introduction to the theory and application of computer programming. Basic control structures and object-oriented constructs are explored.

Objectives:

Upon completion of this course, each student should be able to do the following within the context of the Visual Basic environment:

- Describe the Program Development Cycle and discuss programming tools.
- Understand the fundamentals of programming in a particular language.
- Explain the concept of structured design and coding, and be able to identify, explain, and appropriately implement the three control structures.
- Demonstrate an understanding of a programming language syntax.
- Use and show an understanding of numeric and string variables and constants.
- Recognize and use good programming techniques, including program comments and proper indentation of the source code.
- Analyze the processing requirements for a given set of program specifications and develop an algorithm.
- Understand the concept of modular programming and implement a program that uses modules and passes parameters from one module to another.
- Write a program that will fully implement input, output, arithmetic and logical operations within an interactive processing environment.
- Understand and implement the process of program debugging.
- Describe arrays and sequential and binary search techniques for arrays.
- Implement procedures or subprograms into a program, thus creating a modular

program design.

- Understand and implement the three program control structures: sequence, selection, and repetition.
- Create and manipulate arrays of one and two dimensions.
- Create custom dialog boxes in a program
- Demonstrate recursion and use recursive methods to implement recursive algorithms.

Attendance:

It is the responsibility of each student to be aware and informed of what is said and done in each class session. Due to the nature of the course, you should plan to be in class every session. Whether absence from all or a portion of a class session is necessary or simply a choice, it is the responsibility of the student to arrange some manner in which to be informed of what announcements were made and what material was covered. A student's accountability is not waived due to lack of information caused by absence or inattention.

The course Web site within the college's Angel system will be used to post announcements and other information. In addition, each student will be required to check his or her Angel email account on a regular basis, or have Angel email forwarded to an account which will be checked regularly.

Method of instruction:

A combination of lectures and the independent study and practice of each student will achieve the course objectives. The lectures will be used to introduce, discuss, and review the programming concepts presented in the text. In general, class time will not be used to work on the programming assignments.

Method of evaluation:

Grades will be based on exam scores and programming projects. Exam scores will account for 75% of the course grade, while the programming projects will account for 25% of the course grade.

One percent of the overall semester grade may be deducted for each exam that is taken late, regardless of the reason. A score of zero will be recorded for any exams not taken within one week of the original exam date. Due dates will be established for all programming projects. Projects must be submitted by the due date to receive full credit. No credit will be given for any projects that are not submitted before the start of the next class period following the original due date.

The following scale will be used to determine a letter-grade:

A ..... 93 - 100%
A- ..... 90 - 92%
B+ ..... 87 - 89%
B ..... 83 - 86%
B- ..... 80 - 82%
C+ ..... 77 - 79%
C ..... 70 - 76%
D ..... 60 - 69%
F..... 0 - 59%

Academic Integrity

Academic integrity is essential to the existence of an academic community. Every student is responsible for fostering a ***culture*** of academic honesty, and for maintaining the integrity and academic reputation of Lindsey Wilson College. Maintaining a culture that supports learning and growth requires that each student make a commitment to the fundamental academic values: honesty, integrity, responsibility, trust, respect for self and others, fairness and justice.

To foster commitment to academic integrity, faculty are asked to require each student to place and sign the following Honor Code on tests, exams and other assignments as appropriate.: On my honor as a student, I have neither given nor received any unauthorized aid on this assignment/exam.

Violations of the academic integrity policy include cheating, plagiarism or lying about academic matters. Plagiarism is defined as any use of another writer's words, concepts, or sequence of ideas without acknowledging that writer by the use of proper documentation. Not only the direct quotation of another writer's words, but also any paraphrase or summary of another writer's concepts or ideas without documentation is plagiarizing that writer's materials. Academic dishonesty is a profoundly serious offense because it involved an act of fraud that jeopardizes genuine efforts by faculty and students to teach and learn together. It is not tolerated at Lindsey Wilson College.

Students who are determined to have plagiarized an assignment or otherwise cheated in their academic work or examinations may expect an "F" for the activity in question or an "F" for the course, at the discretion of the instructor. All incidents of cheating or

plagiarism are reported by the instructor to the Academic Affairs Office along with copies of all relevant materials. Each instance of cheating or plagiarism is counted separately. A student who cheats or plagiarizes in two assignments or tests during the same semester will be deemed guilty of two offenses. If the evidence is unclear, or if a second offense occurs, the VP for Academic Affairs or Associate Dean will work in cooperation with the Dean of Students to move the student before the campus Judicial Board for review. Violations will ordinarily result in disciplinary suspension or expulsion from the College, depending on the severity of the violation involved. Note: The College has purchased Turnitin.com, a web product used to detect plagiarized documents.

Questioning a Grade: Student Academic Complaint

A student who wishes to question a grade assignment, or other academic issue, should follow the procedure below:

a. Whenever possible, the student shall first go to the faculty member who has assigned the disputed grade. Complaints regarding grades must should be made within fourteen (14) days of receipt of the disputed grade and will be decided by the faculty member within seven (7) days of receipt.
b. The student may, within seven days, request in writing, and a review of such decision by the Chair of the division in which the grade was assigned. Upon receipt of such request, that Chair will direct the faculty member and the student to teach submit, within 10 days, a written account of the incident, providing specific information as to the nature of the dispute.
c. Upon receipt of these written accounts, the Chair will meet, if possible, within fourteen (14) days, with the faculty member and the student in an effort to resolve the dispute and will render his or her decision in writing.
d. If either the student or the faculty member desires to appeal the decision of the Chair of the division, the student or faculty member may, within seven (7) days by written request to the Chair, request that the matter be reviewed by a the Academic Affairs Council, the Academic Affairs Office will render a decision within 21 days of receipt of the referral from the Chair.

If the disputed grade is assigned at the end of a fall or spring semester and the student and faculty member cannot meet to resolve the issue, the student should contact the faculty member by email within fourteen (14) days of receipt of the disputed grade. If the issue cannot be resolved by email within the time limit, steps b, c, and d of the appeal may extend into the beginning of the semester immediately following receipt of the disputed grade by following the timeline above.

Academic Success Center

The Academic Success Center, located in the Everett Building, offers peer tutoring to aid students in completing class assignments, preparing for exams and improving their understanding of content covered in a particular course. In addition, computers are available for student use.

Students are encouraged to utilize this Center as a resource for improving study strategies and reading techniques. The Center also offers assistance with other academic problems resulting from documented learning disabilities. All services are free of charge to all Lindsey Wilson College students (students with learning disabilities are responsible for providing documentation from an appropriate outside professional

source such as a professional evaluation or school IEP). Please contact Maretta Garner, Tutor Coordinator at 384-8037 for further information and assistance.

Writing Center and Mathematics Center

The Writing Center (located in the Slider Humanities & Fine Arts Building), and the Mathematics Center (located in the Fugitte Science Building) are available for specialized tutoring at no charge to students. Please contact Jerrod Odd, Writing Center Coordinator, at 384-8209 or Linda Kessler, Math Tutor Coordinator, at 384-8115 for further information and assistance.

Final Exams

Final Exams for day classes are scheduled for the Spring 2013 semester for May 6-9. The academic calendar, which contains the schedule for finals, is in the College Catalog and course schedule listing. Please make any necessary flight arrangements after the final exam week. Students will not be permitted to take early finals unless extenuating circumstances exist. "Extenuating circumstance" means illness, a verified family emergency or participation in officially sponsored travel in support of an event arranged by the College. Travel arrangements must be made in sufficient time that tickets may be obtained after final exams and the semester is officially over. All requests for early finals must be made in person to the Academic Affairs Office.

Cell Phone Policy

Student cell phones will be off during class time unless prior arrangement is made with the instructor.

Dropping a Course

Students enrolled in the following courses cannot drop from these classes during the semester: READ 0903, 1013, and 1023; STSK 1003; ENGL 0903 and 0904; and ESL 0803, 0804 and 0854.

Students who wish to drop a course must complete an Add/Drop Form, including instructor and adviser signatures, and submit it to the Registrar's Office. Failure to do so will result in a grade of F for the course. Add/Drop Forms may be obtained from the Registrar's Office or the academic adviser.

When the Add/Drop Form is properly authorized and submitted to the Registrar's Office, the course will appear on the student's record with a designation of W (drop/withdrawn). No course drops are permitted during the last 30 class days of the semester.

Spring 2013 Class Schedule (subject to revision):

WEEK	DAY	DATE	TOPIC(S)
1	M	1/14	**NO CLASS MEETING**
	W	1/16	Chapter 1
	F	1/18	Chapter 1
2	M	1/21	**MLK HOLIDAY**
	W	1/23	Chapter 2
	F	1/25	Chapter 2
3	M	1/28	Chapter 2
	W	1/30	Chapter 2
	F	2/1	Chapter 3
4	M	2/4	Chapter 3
	W	2/6	**EXAM 1 (Chapters 1-2)**
	F	2/8	Chapter 3
5	M	2/11	Chapter 3
	W	2/13	Chapter 3
	F	2/15	Chapter 4
6	M	2/18	Chapter 4
	W	2/20	Chapter 4
	F	2/22	Chapter 4
7	M	2/25	Chapter 5
	W	2/27	Chapter 5
	F	3/1	**EXAM 2 (Chapters 1-4)**
8	M	3/4	Chapter 5
	W	3/6	Chapter 5
	F	3/8	Chapter 5
9	M	3/11	**SPRING BREAK**
	W	3/13	**SPRING BREAK**
	F	3/15	**SPRING BREAK**
10	M	3/18	Chapter 5
	W	3/20	Chapter 7
	F	3/22	Chapter 7
11	M	3/25	Chapter 7
	W	3/27	Chapter 7
	F	3/29	GOOD FRIDAY HOLIDAY
12	M	4/1	Chapter 9
	W	4/3	**EXAM 3 (Chapters 1-5, 7)**
	F	4/5	GOOD FRIDAY HOLIDAY
13	M	4/8	Chapter 9
	W	4/10	Chapter 9
	F	4/12	Chapter 9
14	M	4/14	Chapter 10
	W	4/17	Chapter 10
	F	4/19	Chapter 10
15	M	4/21	Chapter 10
	W	4/24	Chapter 10
	F	4/26	Chapter 14
16	M	4/29	Chapter 14
	W	5/1	Chapter 14
	F	5/3	Chapter 14
F	W	5/8	**EXAM 4 (Chapters 1-5, 7, 9, 10, 14)**