# CSC 260.002: Object-Oriented Programming I

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Semester: Fall 2016 Office: GH 444
Class Meeting Time: TR 9:25-10:40 am Email: foxr@nku.edu

Class Meeting Place: GH 250 Web: http://www.nku.edu/~foxr/

Office Hours: MWF 10-10:50 am, TR 8:00-9:00 am, and by appointment

## **Course Description:**

Elementary object-oriented programming concepts and practice: types, selection statements, loops, methods, arrays, classes, inheritance and polymorphism; design and problem-solving. An intensive introduction intended for students with programming experience.

## **Textbook:**

• <u>Introduction to Java Programming</u> (Comprehensive Version), 10<sup>th</sup> edition, by Y. Daniel Liang (required text). NOTE: you may use the Brief version if you are not going to take CSC 360.

## **Prerequisites and Credits:**

C- or better in MAT 109 (or higher) and INF 110 or INF 120 or placement. If you are signed up for CSC 260L, you must be signed up for CSC 260 as well. This course is required for CSC and DSC majors, CSC minors, and CIT majors who are in either the web/database track or non-specialist track.

## **Course Topics:**

Introduction to the Java programming language including primitive data types and operations, conditional operators and statements (if, if-else, etc), loops, methods, arrays, Strings and Text I/O, objects and classes and an introduction to OOP concepts of polymorphism, inheritance and encapsulation.

### **Student Learning Outcomes:**

By the end of this course, students will:

- be able to write programs in a contemporary, widely-used object-oriented programming language to solve problems using a variety of data types and control structures
- be able to write programs that use methods and parameter passing and message passing
- be able to write programs that perform array-based storage and be able to search and sort the arrays
- be able to write programs that define classes and use other classes
- understand fundamental programming concepts of modular design and develop useful coding habits for future coursework
- understand fundamental concepts of object-oriented programming: encapsulation, information hiding, inheritance, polymorphism
- understand specific concepts of the given language (Java in our case)

This course prepares students more advanced programming courses within CSC, DSC and CIT majors.

## **Course Materials:**

This course uses the instructor's website at <a href="http://www.nku.edu/~foxr/CSC260">http://www.nku.edu/~foxr/CSC260</a> (not Blackboard!) This site will contain all lecture notes (PowerPoint slides), handouts/assignments, sample programs and sample problem solutions. Download these items at your leisure. It is your responsibility to keep an eye on this website during the semester for new material.

### **Student Assessment:**

Student grades will be determined by the student's performance on:

- 10 programming assignments to test the student's ability to write object-oriented programs in Java, each equally weighted
- 3 exams (2 midterms and 1 final exam), each equally weighted

The programming assignments are worth 50% of your grade, the three exams are worth the remaining 50%. The grading scale (subject to curve if necessary) is:

A: 100-93 A-: 92-90 B+: 89-87 B: 86-83 B-: 82-80 C+: 79-77 C: 76-73 C-: 72-70 D+: 69-67 D: 66-60 F: 59-0

Mid-term grades will be posted on myNKU by October 15. The grade is *not a predictor of your final grade* but merely your grade at that point of the semester. The last date to drop with a grade of W is Monday, October 31.

# Schedule of topics and readings:

See <a href="http://www.nku.edu/~foxr/CSC260/readings.pdf">http://www.nku.edu/~foxr/CSC260/readings.pdf</a> including final exam information.

# **Programming Policies:**

Due dates for each assignment will be provided when that assignment is provided to the class. All assignments are due at the **beginning** of the class period of the due date. Late assignments will be accepted with a penalty of 10% *per day late*. Every programming assignment should be submitted via hard copy including your Java code (source code) and your output. If you cannot attend class or for some other reason cannot print out your assignment, you may email it to the instructor as long as it is received a minimum of 1 hour ahead of class time on the due date. All programming assignments are **individual assignments** meaning that students should work alone at all times except when seeking clarification. If the instructor suspects students of copying off of each other or working together, the instructor will give a grade of 0 on those assignments and warn the students. A second offense will cause disciplinary action.

### **Credit Hour Policy Statement:**

In accordance with federal policy, NKU defines a credit hour as the amount of work represented in the achievement of student learning outcomes (verified by evidence of student achievement) that reasonably approximates one hour (50 minutes) of classroom instruction and a minimum of two hours of out-of-class student work. For every course credit hour, a typical student should expect to spend at least three hours per week of concentrated attention on course-related work including, but not limited to, class meeting time, reading, reviewing, organizing notes, studying and completing assignments. At least an equivalent amount of time is expected for other academic activities such as online courses, laboratory work, internships, practica, studio work and other academic work leading to the award of credit hours.

Estimates of the time required for a typical student to complete course expectations are as follows:

In-class: 3 hours/week \* 15 weeks + final exam
Reading/Studying: 4 hours/week \* 15 weeks

Assignments: 10 assignments \* 8 hours apiece

Total:

-177.5 hours/semester
(approx. 9 hours/week)

Students who do not spend an appropriate amount of time on this course will most likely obtain a poor grade and perhaps not pass the class.

## **Absentee Policy**

For financial aid purposes, the University is now requiring that attendance be monitored during the first week of class. A student will be *administratively dropped* if that student has not attended class during the first week and has not previously contacted the instructor. If for whatever reason you cannot attend class during the first week, contract the instructor to inform the instructor of your intention of staying in the class. You will receive no further warnings!

Aside from this first week, the instructor will not take attendance. It is up to the student to attend class regularly and to determine what materials were missed in the event of an absence. If an assignment is due on a date that the student is absent, it is the student's responsibility to make sure that the instructor receives the assignment prior to the beginning of class time (whether by Email or having someone reliable drop off the assignment to the instructor in his office, mailbox or classroom). If the student is to miss a class period when an exam is being given, the student **must** contact the instructor **in advance** to make arrangements for a **make-up exam**, otherwise the student will receive a 0 on that exam.

### **Student Evaluation of Instructor and Course:**

Northern Kentucky University takes Instructor and Course Evaluations very seriously as an important means of gathering information for the enhancement of learning opportunities for its students. It is an important responsibility of NKU students as citizens of the University to participate in the instructor and course evaluation process. During the week prior to the final exam, you will be asked to reflect upon what you have learned in this course, the extent to which you have invested the necessary effort to maximize your learning, and the role your instructor has played in the learning process. It is very important that you complete the online evaluations with thoughtfully written comments.

Student evaluations of courses and instructors are regarded as strictly confidential. They are not available to the instructor until after final grades are submitted, and extensive precautions are taken to prevent your comments from being identified as coming from you. Students who complete an evaluation for a particular course (or opt out of doing so in the evaluation) will be rewarded for their participation by having access to their course grade as soon as that grade is submitted by the instructor. On the other hand, any student who does not complete the course evaluation (or opt out of doing so in the evaluation) should expect to incur a two week delay in access to his or her course grade beyond the university's official date for grade availability. To complete online evaluations go to http://eval.nku.edu. Click on "student login" and use the same USERNAME and PASSWORD as used on campus.

In addition, you should be aware of:

- Evaluations can affect changes in courses. Evaluations without comments are less valuable and less credible than those filled out thoughtfully. Comments that are expressed well are more effective than those that are not.
- Positive feedback is just as important as criticism. Moreover, negative evaluations without any explanation or specifics are not especially useful.
- Once grades are submitted, all evaluations are read not only by the instructor, but also by the instructor's department chairperson.
- Evaluations not only provide feedback to your instructor, but also provide information to the department chair for use in performance evaluations. This information affects reappointments, promotions, salaries, and teaching assignments.

### **Classroom Expectations:**

Cellphones must be on vibrate (PLEASE!) You may leave the classroom at any time other than during exams as long as you do so quietly. If you come in late, please be quiet. During an exam, you may leave to answer your phone, use the facilities, etc, but please inform the instructor before leaving. While the instructor is lecturing, please be quiet. Do not engage other students in conversation. You may ask questions at any time during a lecture. Please do ask questions and please ask for more example problems if you feel you need them. You are encouraged to bring a laptop to class if you feel it will help you.

### **Student Honor Code:**

This Student Honor Code [the "Honor Code"] is a commitment by students of Northern Kentucky University, through their matriculation or continued enrollment at the University, to adhere to the highest degree of ethical integrity in academic conduct. It is a commitment individually and collectively that the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain an academic advantage over fellow students or avoid academic requirements.

The purpose of the Honor Code is to establish standards of academic conduct for students at Northern Kentucky University and to provide a procedure that offers basic assurances of fundamental fairness to any person accused of violations of these rules. Each Northern Kentucky University student is bound by the provisions of the Honor Code and is presumed to be familiar with all of its provisions. Students also should aspire to conduct themselves in a manner that is consistent with the highest degree of ethical integrity in all matters, whether covered in the Honor Code or not. The success of this commitment begins in the diligence with which students uphold the letter and the spirit of the Honor Code. Students may view the complete honor code at <a href="http://scra.nku.edu/Infostudents/Infostudents.html">http://scra.nku.edu/Infostudents/Infostudents.html</a>.

## **Student Retention and Disabilities Services:**

Students experiencing roadblocks to academic success may seek assistance from the Learning Assistance Programs (LAP). Financial, personal, and social concerns sometimes interfere with the dedicated focus needed to be successful in college. LAP helps students connect to academic and support services, create individual learning plans, and advance successfully towards graduation. Services including Norse Advising, student support services, testing and disability services, the math center, the writing center and tutoring. More information is available at <a href="http://lap.nku.edu">http://lap.nku.edu</a>. Call 859 572-5475 for an appointment or stop by University Center 170. You can apply for a tutoring session through TutorTrac at <a href="https://tutortrac.nku.edu/tracweb40/default.html">https://tutortrac.nku.edu/tracweb40/default.html</a>.

The University is committed to making reasonable efforts to assist individuals with disabilities in their efforts to avail themselves of services and programs offered by the University. To this end, Northern Kentucky University will provide reasonable accommodations for persons with documented qualifying disabilities. If you have a disability and feel you need accommodations in this course, you must present a letter to me from the Disability Programs and Services Office (SU 303), indicating the existence of a disability and the suggested accommodations. More information can be found at <a href="http://disability.nku.edu">http://disability.nku.edu</a> including how to register and assistant resources and technologies. See also the institutional policy for ADA guidelines.

Any questions? Please ask!

The instructor reserves the right to alter the syllabus if circumstances dictate.