

## CS 16000-01 Course's Labs and Projects Schedule, Fall 2024

**Course Number and Name:**

CRN = 11648 CS 16000-01 Introduction to Computer Science I (4 cr.)

**Credits and contact hours:** 4 cr. 4 contact hours (Two 75 mins weekly lectures and one 75 mins weekly lab work)

Fall 2024 [August 26<sup>th</sup>, 2024 – December 22, 2024]  
Monday, Wednesday 1:30 am – 2:45 am, **ET 115**

Labs: (Students are required to register and attend one of the following lab sections.)

CRN = 11674 CS 16000-02 Monday 3:00noon – 4:15pm, ET 109

CRN = 11675 CS 16000-03 Wednesday 3:00noon – 4:15pm, ET 109

**Instructor or Course Coordinator:**

Peter A. Ng, Ph.D.

Office: ETCS 125L

Phone: 260-481-6237 (office), 260-481-6803

E-mail: [ngp@pfw.edu](mailto:ngp@pfw.edu)

Office hours: **MW 11:00 am - 01:00 pm and by appointment.**

**TTh 12:00 am - 01:30 pm and by appointment.**

(Please call me before you come to ensure I will be in my office).

**Graduate** Austin Robinson, E-mail address: [robiam06@pfw.edu](mailto:robiam06@pfw.edu)

**Teaching Assistants:** Office hours: Monday and Wednesday from 4:30 pm -5:45 pm in Neff Hall, room 366

**Catalog Description:**

An introduction to the fundamental concepts and techniques of Computer Science. Students will learn to program using an object-oriented language. They will learn how to translate a real problem into a program description, and how to write and test a program to implement their description. The emphasis will be on developing a professional style at an elementary level. CS 16000 will carry syntax as far as interacting classes, arrays of one dimension, and simple file i/o. Students with no programming background should instead consider CS 11200.

**Prerequisites:** MA 15300 College Algebra.

**Type of Course:** Required

## Textbook and Reading Materials:

### Required Textbook:

Starting Out with Java, From Control Structures through Objects, 8<sup>th</sup>, Tony Gaddis, 2022 ISBN-13: 978-0-13-735794-9. Pearson.

### Supplemental Materials:

#### Needed Software (Recommended)

Java

#### Eclipse IDE for Java Developers

[www.eclipse.org/downloads](http://www.eclipse.org/downloads)

*jdk10 preferred.*

### Microsoft Teams:

You are invited as my guests in Microsoft Teams. If you download Microsoft Teams on your computer, you will be able to access my lectures live via Microsoft Teams.

## Course Objectives & Learning Outcomes:

The goal of this course is to introduce the object-oriented programming technique provided by the Java language. (Specific learning outcomes are listed below. The numeric numbers in parentheses refer to ABET CS Program Criteria 3 Student Outcomes.) A student who successfully fulfills the course requirements will be able to:

1. Recognize the software and hardware components of a computer system (6)
2. Recognize and apply the software development phases (6)
3. Utilize Java syntax in fundamental programming algorithms (1)
4. Recognize and apply the various input and output devices in programming (2)
5. Recognize and apply the various control structures (1)
6. Design and implement elementary multi-class solutions to programming problems (2) (6)
7. Recognize the need for arrays in the solutions of programming problems and manipulate data in one-dimensional arrays (1) (6)
8. Recognize and apply the basic debugging strategies in programming (2)

## Course Learning Outcomes to Student Outcomes Mapping

| Course Learning Outcome | ABET Criterion 3. Student Outcomes |   |   |   |   |   |
|-------------------------|------------------------------------|---|---|---|---|---|
|                         | 1                                  | 2 | 3 | 4 | 5 | 6 |
| 1                       |                                    |   |   |   |   | ● |
| 2                       |                                    |   |   |   |   | ● |
| 3                       | ●                                  |   |   |   |   |   |
| 4                       |                                    | ● |   |   |   |   |
| 5                       | ●                                  |   |   |   |   |   |
| 6                       |                                    | ● |   |   |   | ● |
| 7                       | ●                                  |   |   |   |   | ● |
| 8                       |                                    | ● |   |   |   |   |

**Tentative schedule and topics [ of CS 16000-01 with instructor Peter Ng]**

| Week Of   | Topic   |  | Labs (M, Section 2, or W Section 3)            |   | Projects  |
|---|---|--|--|---|---|
|   | Monday  | Wednesday                                  | Monday (2)                                     | Wednesday (2)   |   |
| August 26<br>Monday   | Ch 1<br>Introduction  | Ch 2 Java<br>Fundamentals                  | Lab 0: IntroEclipse<br>Due on 9/1 at           | Lab 0: Intro Eclipse:<br>11:59 pm (Sunday<br>Midnight)                            | All labs and projects are<br>due on Sunday at 11:59<br>pm; and assigned on<br>Monday at 0:30 am |
| September 2<br>Monday<br>(Labor Day)                        | Labor Day<br>Recess(begin<br>8/30 4:30pm)   | Ch 2                                       | Labor Day Recess<br>Due on 09/15 at            | Lab 1<br>11:59 pm (Sunday<br>Midnight)  | Project 1 is assigned<br>on 9/2 at 0:30 am  |
| September 9<br>Monday                                       | Ch 2  | Ch 3<br>Decision<br>Structures             | Lab 1<br>Due on 09/15 at<br>11:59 pm (Sun Mid) | Project Help<br>Session   |   |
| September 16<br>Monday                                      | Ch 3  | Ch 3                                       | Lab 2<br>Due on 09/22 at                       | Lab 2<br>11:59 pm (Sun. Mid)  |   |
| September 23<br>Monday                                      | Ch 3  | Ch 4 Loops<br>and Files I/O                | Lab 3<br>Due on 09/29 at                       | Lab 3<br>11:59 pm (Sunday<br>Midnight)  |   |
| September 30<br>Monday                                      | <b>Exam01</b><br>(Covers Ch 1<br>thru Ch 3)   | Ch 4                                       | Project Help<br>Session                        | Project Help<br>Session   | Project 1 is due on<br>9/29. Project 2 is<br>assigned on 09/30 at<br>0:30 am                    |
| October 7<br>Monday   | Ch 4  | Ch 5<br>Methods                            | Lab 4<br>Due on 10/13 at                       | Lab 4<br>11:59 pm (Sun. Mid)  |   |
| October 14<br>Monday  | Ch 5  | Ch 5                                       | Lab 5<br>Due on 10/20 at                       | Lab 5<br>11:59 pm (Sun. Mid)  |   |
| October 21<br>Fall Recess<br>(October 21-<br>October 21-22) | Fall Recess<br>(October 21-<br>22)  | Ch 6<br>Classes and<br>Objects I           | Fall Recess                                    | Project Help<br>Session   |   |
| October 28<br>Monday  | Ch 6<br>Classes and<br>Objects I  | Ch 6                                       | Lab 6<br>Due on 11/3 at                        | Lab 6<br>11:59 pm (Sunday<br>Midnight)  | Project 2 is due on 10/27.<br>Project 3 is assigned on<br>10/28 at 0:30 am                      |
| November 4<br>Monday  | Ch 6  | <b>Exam02</b><br>(Ch 4 - Ch 6)             | Project Help<br>Session                        | Project Help<br>Session   |   |
| November 11<br>Monday                                       | Ch 7<br>Arrays and<br>class   | Ch 7                                       | Lab 7<br>Due on 11/17 at                       | Lab 7<br>11:59 pm (Sunday<br>Midnight)  |   |
| November 18<br>Monday                                       | Ch 7  | Ch 7                                       | Lab 8<br>Due on 11/24 at                       | Lab 8<br>11:59 pm (Sun. Mid)  |   |
| November 25<br>Monday (Nov<br>27-Dec 1<br>Thanksgiving)     | Ch 7  | Thanksgiving<br>Recess (Nov<br>27 – Dec 1) | Project Help<br>Session                        | Thanksgiving<br>Recess begins after<br>last class on Tuesday<br>(Nov. 27 – Dec 1) | Project 3 is due on<br>11/24. Project 4<br>(optional) is assigned<br>on 11/25 at 0:30 am        |
| December 2<br>Monday  | Ch 8  | Ch 8                                       | Lab 9<br>Due on 12/8 at                        | Lab 9<br>11:59 pm (Sun. Mid)  |   |
| December 9<br>Monday  | Ch 8 Classes<br>and Objects<br>II   | Ch 8                                       | Lab 10<br>Due on 12/15 at                      | Lab 10<br>11:59 pm (Sunday<br>Midnight)   | Project 4 is due<br>on 12/8 at 0:30 am  |
| December 16<br>(FINAL<br>EXAMS<br>WEEK)                     | <b>Final Exams and Last Week of Classes (December 16 - 22)</b><br><b>Exam03 (On final exams week Dec 16, 2024)?</b><br><br><b>December 23: Final Grades Due at Noon</b> |  |  |   |   |

## Other Course Policies

### *Attendance:*

Class attendance is a University requirement. Generally, you are expected to attend class. Attendance will be taken and may be graded, as explained under participation. Students who attend regularly typically have the best performance. You are responsible for obtaining any course-related information or material from classes you may have missed.

### *Academic Honesty:*

Do your work. Write your solutions. Students are anticipated to help each other troubleshoot and solve problems together in this course. However, assignments should be done individually, so you should not copy or provide your work to other students in the class. Students should not copy any materials from websites, open sources, and so forth, and then paste them into their work. **You will receive a zero if you are caught cheating or plagiarizing, and will automatically fail the course if caught a second time.**

### *Plagiarism/academic misconduct:*

<http://catalog.pfw.edu/content.php?catoid=49&navoid=1457#misconduct>

This includes definitions of academic misconduct as well as the procedures faculty **need** to follow if such student behavior is identified.

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