Graduate Course Syllabus

IT 511: Object-Oriented Application Development

Center: Online

Course Prerequisites

None

Course Description

This course provides a comprehensive introduction to the principles and practices of object-oriented software development and provides a foundation for developing quality software. Students develop skills in applying object-oriented concepts to solve software problems and implement solutions. The course also teaches the concepts and design of algorithms for problem solving and includes the topics of data structures as they are related to the algorithms that use them. The course provides the technical foundation necessary to handle the material covered in the subsequent IT courses.

Course Outcomes

- Employ suitable data types in object-oriented programs for addressing specific program requirements
- Apply algorithms using appropriate control structures for solving computational problems
- Implement methods that accept parameters and return expected results for addressing given program requirements
- Construct classes with relevant object attributes and behaviors for developing modular object-oriented solutions
- Utilize appropriate documentation techniques for articulating the purpose and behavior of object-oriented code for specific audiences

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through the SNHU Online Bookstore rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the IT Service Desk, your advisor, and the instructor can provide you with support if you have problems.

Java: Early Objects
Zybooks
Zybooks (cc)
1st Edition
Copyright 2017
SKU #: 4296970

zyBooks

To access your zyBooks resource, complete the steps outlined in the course announcements area.

In this course, you will use the Virtual Lab to access the following software:

- Java SDK
- NetBeans

Please create accounts when prompted to do so, if you do not already have them.

Diversity, Equity, and Inclusion

As indicated in our core values, SNHU is committed to "embrace diversity where we encourage and respect diverse identities, ideas, and perspectives by honoring difference, amplifying belonging, engaging civilly, and breaking down barriers to bring our mission to life."

This may or will be reflected in SNHU's curriculum as we embrace and practice diversity, equity, and inclusion (DEI) to provide the most transformative experience for our students, faculty, and staff. Because topics pertaining to DEI can be sensitive, please remember that embodying and practicing diversity, equity, and inclusion is one of our core values that you will encounter throughout the academic experience. In higher education, we are expected to think and engage critically. Use a growth mindset to embrace the diverse readings, course assignments, and experiences of your peers and faculty.

For more information about DEI at SNHU, please visit our website at the Office of Diversity and Inclusion.

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours. Instructors will post grades and feedback (as applicable) within seven days of an assignment's due date, or within seven days of a late submission.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Final Project Review Quiz	1	15	15
Discussions	2	15	30
zyBooks Activities	7	35	245
Stepping Stone Labs	6	40	240
Final Project			
Milestones	2	60	120
Final Submission	1	350	350
			Total Course Points: 1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Graduate

Grade	Numerical Equivalent	Points
A	93–100	4.00
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3.00
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2.00
F	0–72	0.00
I	Incomplete	
IF	Incomplete/Failure *	
W	Withdrawn	

* Please refer to the policy page for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Introduction to Object-Oriented Programming *Programming in Java* (zyBooks), Chapter 1 (Sections 1.1–1.11) and Chapter 2 (Sections 2.1–2.3) 1-1 Activity: zyBooks 1-2 Discussion: Introduction and Experience 1-3 Access and Test: NetBeans and "Hello, World!" (Non-graded) 1-4 Final Project Review and Quiz
2	Introduction to Object-Oriented Programming Concepts *Programming in Java* (zyBooks), Chapter 3 (Sections 3.1–3.12) and Chapter 4 (Sections 4.1–4.8) 2-1 Activity: zyBooks 2-2 Stepping Stone Lab One: Pseudocode for Your Program
3	Data Types and Variables *Programming in Java* (zyBooks), Chapter 5 (Sections 5.1–5.10) 3-1 Activity: zyBooks 3-2 Stepping Stone Lab Two: Data Types
4	Control Structures: Conditionals *Programming in Java* (zyBooks), Chapter 6 (Sections 6.1–6.15) 4-1 Activity: zyBooks 4-2 Stepping Stone Lab Three: Branches
5	Control Structures: Loops *Programming in Java* (zyBooks), Chapter 7 (Sections 7.1–7.12) and Chapter 8 (Sections 8.1–8.5) 5-1 Activity: zyBooks 5-2 Stepping Stone Lab Four: Loops 5-3 Final Project Milestone One: Ingredient Class
6	Classes *Programming in Java* (zyBooks), Chapter 9 (Sections 9.1–9.4) and Chapter 10 (Sections 10.1–10.3) 6-1 Activity: zyBooks 6-2 Stepping Stone Lab Five: Recipe Class With Accessors and Mutators
7	Methods *Programming in Java* (zyBooks), Chapter 9 (Sections 9.6–9.9) 7-1 Activity: zyBooks 7-2 Final Project Milestone Two: Recipe Class
8	Inheritance *Programming in Java* (zyBooks), Chapter 11 (Sections 11.1–11.8) 8-1 Activity: zyBooks 8-2 Stepping Stone Lab Six: RecipeBox Driver Application
9	The Collection Manager Program 9-1 Activity: Generating Javadoc (Non-graded) 9-2 Final Project Submission: Collection Manager Program
10	Extending the Code 10-1 Discussion: Researching an Advanced Topic

Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student

does not submit a graded assignment/discussion during the first week of class, the student is automatically dropped from the course for non-participation. Review the full attendance policy.

Late Assignments Policy
Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the full late assignment policy.

SNHU Student Handbook
Review the student handbook.

ADA/504 Compliance Statement
Southern New Hampshire University (SNHU) is dedicated to providing equal access to individuals with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and with Title III of the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

SNHU prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. The university has adopted this policy to provide for prompt and equitable resolution of complaints regarding any action prohibited by Section 504, the ADA, or the ADAAA.

For questions about **support services, documentation guidelines, general disability issues, or pregnancy accommodations**, please visit the Online Accessibility Center (OAC).

As a student, you must complete an interactive intake process, with supporting documentation, in order to be granted accommodations. Once reasonable accommodations are approved by the OAC, you will receive an accommodations letter. You are then responsible for sharing the letter with your instructor. Accommodations are not retroactive.

If you feel you've been subject to discrimination on the basis of disability, by any party, you may file a complaint or grievance. For more information on the ADA/504 Grievance Policy, go to the Disability and Accessibility Services website.

Academic Honesty Policy
Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the full academic honesty policy.

Copyright Policy
Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the full copyright policy.

SNHU Withdrawal Policy
Review the full withdrawal policy.

Southern New Hampshire University Policies

More information about SNHU policies can be found on the [policy page](#).