



Undergraduate Course Syllabus

IT 135: Interactive Scripting in Virtual Environment

Center: Online

Course Prerequisites

None

Course Description

This course introduces students to the underlying concepts in manipulating a three dimensional virtual reality environment. The objects in this environment are both recognizable (dinosaur, tree, airplane) and also proper objects as the term is used in computer science. Students will work individually and in teams animating to specific objectives with a significant deliverable at the end of the course. Implementations of interactive advertising or educational games are potential project areas. Topics include: virtual reality concepts (objects, point of view, lighting), object oriented concepts (properties, methods, events), and animation control concepts (collision detection, decision implementation, iteration, and parallel activities).

Course Outcomes

- Illustrate the fundamental concepts of object-oriented development using specific examples
- Create interactive virtual worlds in a high-level, object-based environment called Alice
- Analyze the fundamentals of the Java environment
- Apply the fundamentals Java to create applications at the introductory level

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, [MBS Direct](#), rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

Starting Out With Alice: A Visual Introduction to Programming

Gaddis, Tony

Pearson

3rd Edition

2013

ISBN: 978-0-13-312974-8

Software Requirement

Alice 2.3.x

Carnegie Mellon

<http://www.alice.org>

Microsoft Imagine

Southern New Hampshire University students are able to obtain discounted, often free, Microsoft software for IT and DAT courses through the Microsoft Imagine program. Go to the [SNHU Academic Software Center](#) and request an account from the right panel to begin managing your software. If you have trouble downloading and installing the software, please request access to SNHU's virtual desktop (VDI) environment from your instructor.

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place in Blackboard 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 forum in Blackboard 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.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	8	50	400
Chapter Exercises	7	50	350
Final Project			
Milestone 1: Project Proposal	1	50	50
Milestone 2: Detailed Design	1	50	50
Milestone 3: Working Prototype	1	50	50
Milestone 4: Final Product	1	100	100
		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: Undergraduate

Grade	Numerical Equivalent	Points	<i>Total Points. 1,000</i>	
			<i>Lower</i>	<i>Upper</i>
A	93-100	4	930	1000
A-	90-92	3.67	900	929
B+	87-89	3.33	870	899
B	83-86	3	830	869
B-	80-82	2.67	800	829
C+	77-79	2.33	770	799
C	73-76	2	730	769
C-	70-72	1.67	700	729
D+	67-69	1.33	670	699
D	60-66	1	600	669
F	0-59	0	0	599
I	Incomplete			
IF	Incomplete/Failure*			
IP	In Progress (past end of term)			
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 Course Information area in the Assignment Guidelines and Rubrics folder.

Weekly Assignment Schedule

The Learning Modules area in Blackboard contains one module folder for each week of the course. All reading and assignment information can be found in the folders. Assignments and discussion board 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 in Blackboard.

Module	Topics and Assignments
1	<p>Introduction to Object-Oriented Programming</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 1</p> <p>1-1 Discussion: Objects and Classes in 3D Worlds and Codes</p> <p>1-2 Activity: Install and Configure the Alice 2.3 Programming Environment</p> <p>1-3 Activity: Tutorials</p> <p>1-4 Assignment: Chapter 1 Exercises</p> <p>1-5 Review Final Project</p>

2	<p>Introduction to Programming</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 2</p> <p>2-1 Discussion: Programs and Structure as Exemplified in Alice and in Java</p> <p>2-2 Activity: Tutorials</p> <p>2-3 Activity: Chapter 2 Exercises</p>
3	<p>Math, Variables, and Functions</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 3</p> <p>3-1 Discussion: Exploring Variables, Math and Strings in Alice and Java</p> <p>3-2 Activity: Tutorials</p> <p>3-3 Assignment: Chapter 3 Exercises</p> <p>3-4 Final Project: Milestone 1: Project Proposal</p>
4	<p>Decisions</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 4 and 5</p> <p>4-1 Discussion: The Power of Decisions and Loops</p> <p>4-2 Activity: Tutorials</p> <p>4-3 Assignment: Chapter 4 and 5 Exercises</p> <p>4-4 Final Project Milestone 2: Detailed Design</p>
5	<p>Integrating Objects and Methods</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 6</p> <p>5-1 Discussion: Understanding Methods and Objects</p> <p>5-2 Activity: Tutorials</p> <p>5-3 Assignment: Chapter 6 Exercises</p>
6	<p>Events and User Interface</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 7</p> <p>6-1 Discussion: Why Interface</p> <p>6-2 Activity: Tutorials</p> <p>6-3 Assignment: Chapter 7 Exercises</p> <p>6-4 Final Project Milestone 3: Working Prototype</p>
7	<p>Data Structures</p> <p>Reading: <i>Starting Out with Alice: A Visual Introduction to Programming</i>, Chapter 8</p> <p>7-1 Discussion: Solving Problems with Arrays in Alice and Java</p> <p>7-2 Activity: Tutorials</p> <p>7-3 Assignment: Chapter 8 Exercises</p> <p>7-4 Final Project Milestone 4: Final Product</p>
8	<p>Languages, Objects and 3D Worlds</p> <p>8-1 Discussion: Extrapolating Alice to Popular Complex Game Worlds</p> <p>8-2 Discussion: Sharing the Final Project</p>

Attendance Policy

Online students are required to submit a graded assignment/discussion to Blackboard during the first week of class. If a student does not submit a posting to the graded assignment/discussion during the first week of class, the student is automatically withdrawn 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 College of Online and Continuing Education Student Handbook

Review the [student handbook](#).

Diversity and Disability Statement

The College of Online and Continuing Education (COCE) at SNHU values diversity and inclusion. SNHU strives to create inclusive and welcoming academic environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion, please notify the Disability Resource Center (DRC) as soon as possible. We will work with you and your instructor to address needs and concerns. We encourage all students with known or suspected physical, medical, sensory, psychiatric, and/or learning disabilities to register with the Disability Resource Center (DRC) in order to assess learning needs and take advantage of available academic accommodations and support services.

SNHU does not discriminate on the basis of race, color, national origin, sex, disability, age, religion, citizenship, marital status, gender identity or expression, sexual orientation, veteran/military status, or genetic information in its programs and activities. Requests for disabilities accommodations within COCE should be directed to:

Disability Resource Center (DRC)

(866) 305-9430

(877) 520-8916 (fax)

drc@snhu.edu

We welcome COCE students, faculty, and staff to consult with the Disability Resource Center (DRC) on disability-related questions or concerns. We look forward to hearing from you.

Complaints regarding discrimination and accommodations should be directed to:

(603) 645-9664

(603) 645-9717 (fax)

adacompliance@snhu.edu

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 College of Online and Continuing Education Withdrawal Policy

Review the [full withdrawal policy](#).

Southern New Hampshire University Policies

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

Assessment Calibration and Student Work Samples

For the purpose of continuous improvement of our educational training, Southern New Hampshire University's College of Online and Continuing Education may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you have any questions or concerns, contact your advisor. If you would like to withdraw permission for use of your work, please contact the assessment calibration administrator at assessmentcalibration@snhu.edu. See [this document](#) for more information.