



SAINT LOUIS UNIVERSITY
MADRID

CSCI 2300 M01: Object Oriented Software Design
Spring 2018

Class Days and Time: TR 14:30h - 15:45

Classroom: PAH-25

Prerequisite(s): Grade of “C” or better in CSCI-2100

Credit(s): 3

Instructor: Javier Gamo Aranda

Instructor’s Email: javier.gamo@slu.edu

Instructor’s Campus Phone: 91 554 58 58, ext. 266

Office: PAH-202

Office Hours: T 16:00 – 17:00, R 18:30 – 19:30, and upon request.

Course Description: An implementation-based study of object-oriented software development in a Java software environment. Individuals will design and create medium-scale Java applications to convert files of lower storage needs. Additional focus will be on the design and use of object-oriented libraries. Major topics explored during the semester – graphics media, information retrieval, software interfaces, and phone and tablet-based technologies.

Course Goals and Student Learning Outcomes: At the end of the course, students will:

- Develop skills that will enable them to construct software of high quality – software that is reliable, and that is reasonably easy to understand, modify and maintain in an object-oriented programming environment, specifically in Java.
- Understand project development in teams and team analysis of problems.
- Explore tools and techniques available for the design and implementation of software systems.
- Understand the software development life-cycle, and the engineering practices that define it.
- Create and launch actual software applications constructed using the theory and techniques covered in the course.

Following this course, students will be able to:

1. Apply knowledge of mathematics, science, and engineering.
2. Structure a program in a logical and functional way.
3. Structure a program in an object-oriented design using Java.
4. Function on multidisciplinary teams.
5. Understand professional and ethical responsibility.
6. Communicate effectively.
7. Recognize the need for, and engage in life-long learning.
8. Develop a knowledge of contemporary issues.
9. Use the techniques, skills, and modern engineering tools necessary for engineering practice.

Saint Louis University - Madrid Campus is committed to excellent and innovative educational practices. In order to maintain quality academic offerings and to conform to relevant accreditation requirements, the Campus regularly assesses its teaching, services, and programs for evidence of student learning outcomes achievement. For this purpose anonymized representative examples of student work from all courses and programs is kept on file, such as assignments, papers, exams, portfolios, and results from student surveys, focus groups, and reflective exercises. *Thus, copies of student work for this course, including written assignments, in-class exercises, and exams may be kept on file for institutional research, assessment and accreditation purposes.* If students prefer that Saint Louis

University - Madrid Campus does not keep their work on file, they need to communicate their decision in writing to the professor.

Required Texts and Materials:

- Object-Oriented Design & Patterns, 2nd ed., (Cay S. Hortsman)

Further Useful Books:

- Think Java. How to Think Like a Computer Scientist (Allen B. Downey)
www.greenteapress.com/thinkajava/thinkajava.pdf
- Introduction to Java Programming: Comprehensive 8th Edition (Y. Daniel Liang)
- Beginning Java 2 (Ivor Horton)

Additional Online Material:

- <http://java.oracle.com>
- <http://www.gamelan.com>
- <http://www.borland.com/jbuilder>

Attendance Policy: It is mandatory to attend all classes unless a reasonable excuse is given.

Course Requirements and Grading Rationale/System: The grade will be obtained from the following areas:

- Homework: 15%
- Projects: 40%
- Mid-Term Exam: 15%
- Final exam: 30%

100 > A > 90%,
89% > A- > 87%
86% > B+ > 84%
83% > B > 80%
79% > B- > 77%
76% > C+ > 74%
73% > C > 70%
69% > C- > 66%
65% > D > 60%
F < 60%

The grading system may be adjusted as needed at the discretion of the instructor.

Programming projects are due on the day specified when they are assigned. **Late submissions will be penalized at the rate of 20% per day.** Copied projects will not be accepted. Projects will be graded as shown below:

Attribute	%
Program Documentation	20
Compilation & Execution	60
Oral Presentation	20
Total	100

- Students are encouraged to participate in class discussions and to ask questions.
- Announcements may be made during the semester.
- Syllabus, reading and homework problems are subject to change.

- Students are responsible for all lecture material, handouts, homework and assigned reading.
- Make up exams are not given. Students who legitimately miss an exam, due to a doctor's visit or family emergency must provide written documentation of the circumstances. A letter from the university counselor is accepted. Exams that are missed illegitimately result in a score of F. Grades for these students will be based on the remaining exams. Missing more than one exam results in an F grade.
- Programming assignments could include a small extra credit challenge.

E-mail: Campus and course announcements will often be handled by e-mail. Students should check their "@slu.edu" e-mail regularly.

University Statement on Academic Integrity: Academic integrity is honest, truthful and responsible conduct in all academic endeavors. The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care and community service via which SLU embodies its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern.

The governing University-level Academic Integrity Policy can be accessed on the Provost's Office [website](#). Additionally, SLU-Madrid has posted its academic integrity policy online: <http://www.slu.edu/madrid/academics>. As a member of the University community, you are expected to know and abide by these policies, which detail definitions of violations, processes for reporting violations, sanctions and appeals.

The professor will review these matters during the first weeks of the term. Please direct questions about any facet of academic integrity to your faculty, the chair of the department of your academic program, or the Academic Dean of the Madrid Campus.

University Title IX Statement: Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify SLU's Title IX deputy coordinator, Marta Maruri, whose office is located on the ground floor of Padre Rubio Hall, Avenida del Valle, 28 (mmaruri@slu.edu; 915-54-5858, ext. 213) and share the basic fact of your experience with her. The Title IX deputy coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you wish to speak with a confidential source, you may contact the counselors at the SLU-Madrid's Counseling Services on the third floor of San Ignacio Hall (counselingcenter-madrid@slu.edu; 915-54-5858, ext. 230) or Sinews Multiplettherapy Institute, the off-campus provider of counseling services for SLU-Madrid (www.sinews.es; 917-00-1979). To view SLU-Madrid's sexual misconduct policy and for resources, please visit the following web address: <http://www.slu.edu/Documents/Madrid/campus-life/SLUMadridSexualMisconductPolicy.pdf>.

Students with Special Needs: In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about:

- Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor.
- University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to <https://www.slu.edu/madrid/academics/student-resources>.

Students with a documented disability who wish to request academic accommodations must contact Disability Services to discuss accommodation requests and eligibility requirements. Once successfully registered, the student also must notify the course instructor that they wish to access accommodations in the course. Please contact Disability Services at disabilityservices-madrid@slu.edu or +915 54 58 58, ext. 230 for an appointment. Confidentiality will be observed in all inquiries. Once approved, information about the student's eligibility for

academic accommodations will be shared with course instructors via email from Disability Services. For more information about academic accommodations, see "Student Resources" on the SLU-Madrid webpage.

Note: Students who do not have a documented disability but who think they may have one are encouraged to contact Disability Services.

Spring 2018 Course Schedule:

Week	Date	Topics	Comments
1	11-Jan	Course Overview. Introduction to Java. Project #1 Description	First Day of Classes
2	16-Jan - 18-Jan	Java Syntax. Introduction to Eclipse.	
3	23-Jan - 25-Jan	More on Java Syntax. UML Description	21 Jan: Last Day to Drop a Class without a Grade W and/or Add a Class; Last Day to Choose Audit (AU) or Pass/No Pass (P/NP) Options 26 Jan: Application Deadline for Spring Semester Degree Candidates
4	30-Jan - 1-Feb	Thinking in Objects. Project #1 Defense. Project #2 Description	
5	6-Feb - 8-Feb	Object and classes	
6	13-Feb - 15-Feb	More on object and classes	14 Feb: Ash Wednesday Registration for Summer 2018 Begins
7	20-Feb - 22-Feb	Mid-Term Exam	20 Feb: MidTerm Exam 22 - 23 Feb: No classes (Winter Break)
8	27-Feb - 1-Mar	Interfaces and Polymorphism	27 Feb: Professors' Deadline to Submit Midterm Grades
9	6-Mar - 8-Mar	Inheritance in Java	9 Mar: Last Day to Drop a Class and Receive a Grade of W
10	13-Mar - 15-Mar	Project #2 Defense. Project #3 Description. Introduction to JavaFX UI Controls and Multimedia.	15 Mar: Last Day to Submit Transfer Application for Fall Semester
11	20-Mar - 22-Mar	More on JavaFX.	
12	27-Mar - 29-Mar	Holy Week / Semana Santa	26 - 30 Mar: Semana Santa Holiday (Campus Closed)
13	3-Apr - 5-Apr	Event-Driven Programming and Animations	4 Apr: Registration for Fall 2018 Semester Begins
14	10-Apr - 12-Apr	Introduction to Design Patterns	
15	17-Apr - 19-Apr	Project #3 Development	
16	24-Apr - 26-Apr	Project #3 Defense	
17	1-May - 3-May	Review. Teaching evaluations	1 May: Día del Trabajador (Campus Closed) 2 May: Día de la Comunidad (Campus Closed) 8 May: Final Exam (12.00H - 15.00H)
18	8-May - 10-May	Final Exam	11 May: University Housing Move-out Date 12 May: Commencement 13 May: Professors' deadline to submit spring 2018 final grades

Final Exam Schedules Spring 2018

	4 May (Fr)	7 May (Mn)	8 May (Tu)	9 May (Wd)	10 May (Th)
08:30-11:30	Mn classes that meet at 9:00 & 9:30	Mn classes that meet at 10:00	Mn classes that meet at 11:00 & 11:30	Tu classes that meet at 9:30	Tu classes that meet at 8:00
12:00-15:00	Tu classes that meet at 11:00	Mn classes that meet at 13:00	Tu classes that meet at 14:30	Mn classes that meet at 12:00 & 12:30	Tu classes that meet at 12:30
15:30-18:30	Mn classes that meet at 14:30	Tu classes that meet at 17:00 & 17:30	Mn classes that meet at 16:00	Tu classes that meet at 16:00	Mn classes that meet at 17:30
19:00-22:00	---	---	Mn classes that meet at 18:30 & 19:00	Tu classes that meet at 19:00	---