Common Syllabus

This syllabus contains information common to all sections of IT 308 for the Spring 2016 semester. For each section, a customized syllabus with information specific to that section will be made available to registered students via the Blackboard Learning System.

Logistics

<table>
<thead>
<tr>
<th>Section</th>
<th>Instructor</th>
<th>Campus</th>
<th>Day</th>
<th>Timings</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Rajendra Mallampati</td>
<td>Prince William campus</td>
<td>Thursday</td>
<td>7:20 PM – 10:00 PM</td>
</tr>
</tbody>
</table>

Course Description

Building on the programming concepts covered in IT 108, this course focuses on graphical user interfaces. Students will design, develop, and document event-driven programs using an object-oriented language such as Java.

Prerequisites

The prerequisite for this course is IT 108 or CS 112 or permission of the instructor. A grade of "C" or better must be achieved in the prerequisite course before a student is qualified to take this course. The prerequisite course must be completed prior to, not concurrently with, this course.

This requirement will be strictly enforced. Any student who does not meet the prerequisite requirement will be dropped from the course by the instructor at the start of the semester and the student will be responsible for any consequences of being dropped.

Note that regardless of the specific course taken to meet the prerequisite, previous Java experience is required.

Rationale

In today’s information age, majority of the software applications will have some kind of user interface to have better user experience leading to a successful adaptation among broad spectrum of
users. Writing these programs with graphical user interfaces requires a very different way of thinking about programming, using an event-driven paradigm. This course teaches students how to think about programming in this new way as well as reinforcing general programming skills.

**Objectives**

On successful completion of this course, students will be able to:

On successful completion of this course, students will be able to:

- define event-driven programming
- write programs using the event-driven programming paradigm
- write programs with graphical user interfaces
- create well-designed layouts for graphical user interfaces
- write programs including multimedia elements such as graphics, sound, and animation
- develop programs from requirements presented as text

**References**

**Textbooks**


Students are advised to check with safari books for availability before purchasing a copy.

**Faculty and Staff**

Instructors:

**Daniel Garrison** (Course Coordinator)

Email: dgarriso@gmu.edu

Phone:

**Rajendra Mallampati** (Instructor)

Email: rmallamp@gmu.edu (subject: IT-308)

Teaching Assistant: To be announced
Administrative support:

**Fairfax campus**
Patty Holly  
Nguyen Engineering Building, Room 5400  
Phone: 703-993-3565

**Prince William campus**
Cindy Woodfork  
**Bull Run Hall**, Suite 102  
Phone: 703-993-8461

**Grading**

Grades will be awarded in accordance with the GMU Grading System for undergraduate students. See the University Catalog under **Grading System** for more information.

There are a total of 13 weekly modules. Each module will include in class activities worth a total of 5 points and an assignment worth 20 points, for a total of 25 points per module.

Unless otherwise noted, assignments may be submitted up to 48 hours late with a 20% reduction in grade. Work submitted over 48 hours late will receive a grade of 0. In class activities are due the same day.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly in class Activities (13 modules, 5 points each)</td>
<td>65</td>
</tr>
<tr>
<td>Weekly Assignments (13 modules, 20 points each)</td>
<td>260</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>125</td>
</tr>
<tr>
<td><strong>Course Total</strong></td>
<td><strong>550</strong></td>
</tr>
</tbody>
</table>

Your grade will be assigned based on your total points earned as a percentage of the total points available:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-100</td>
<td>A+</td>
</tr>
<tr>
<td>93-96</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
</tbody>
</table>
Raw scores may be adjusted by the Instructor to calculate final grades.

Final grades will be posted to [PatriotWeb](http://www.patriotweb), which is the only vehicle for students to obtain those grades. A student with a "hold" on his or her PatriotWeb account will be unable to access final grades until the hold has been removed by the Registrar.
**Schedule**

This course is structured in terms of weekly modules. Each week begins on a Monday and ends on a Sunday.

This schedule is tentative and is subject to change.

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Chapter(s)</th>
<th>Topic(s)</th>
</tr>
</thead>
</table>
| 1    | 1/24-1/30 | 9, 10, 14.1-14.4 | Inheritance  
Polymorphism  
Java Interfaces  
Inner Classes  
Displaying GUI components  
Windows  
Labels |
| 2    | 1/31-2/6  | 14.5, 14.6, 14.9, 14.11, 14.20 | Windows continued  
Intro to panels  
Buttons  
Text (Text Area, Text Fields, Password Fields  
Formatted Text Fields)  
Check boxes, Combo Boxes, Radio buttons  
Event Handling |
| 3    | 2/7-2/13  | 14.7, 14.12, 14.13 | Lists  
Menus  
Separators  
Introduction to Layouts (Border Layout)  
Event handling |
| 4    | 2/14-2/20 | 14.19, 25.4 and JDK API | Panels  
Internal Frames  
Scroll Panes  
Tabbed Panes  
Split Panes  
More Layouts (Box Layout)  
Event Handling |
| 5    | 2/21-2/27 | JDK API, 14.18 | Trees  
File choosers  
Color choosers  
More Layouts (Card Layout)  
Event Handling |
| 6    | 2/28-3/6  | 25.2, 14.18 14.20, 14.21 | Progress Bars  
Tool Bars  
Sliders, Spinners  
Tool Tips  
More Layouts (Flow Layout)  
Event Handling |
<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3/7-3/13</td>
<td>Spring Break - No class</td>
</tr>
<tr>
<td>8</td>
<td>3/14-3/20</td>
<td>Midterm Exam Tuesday, March 8, 7:00-9:00 PM, location TBA</td>
</tr>
<tr>
<td>9</td>
<td>3/21-3/27</td>
<td>25.6 Grid Layout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.9 GridBag Layout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26.0 JDialog</td>
</tr>
<tr>
<td>10</td>
<td>3/28-4/3</td>
<td>25.9 and JDK API</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JTable</td>
</tr>
<tr>
<td>11</td>
<td>4/4-4/10</td>
<td>15.1 – 15.5 JTable Advanced Features</td>
</tr>
<tr>
<td>12</td>
<td>4/11-4/17</td>
<td>15.6 – 15.9 JDBC development using JDK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using prepare statements and ResultSets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrating Swing applications with a database using JDBC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Java Look and Feel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fonts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drawing and Geometrical shapes</td>
</tr>
<tr>
<td>14</td>
<td>4/25-5/1</td>
<td>Appendix I (on textbook web site)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J Java Swing and 508 Compliance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Abstract Action and Action handlers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Defining focus using Focus subsystem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deploying Swing application using Web Start</td>
</tr>
<tr>
<td>15</td>
<td>5/2 – 5/8</td>
<td>Java Sound Continued</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Final Exam Tuesday, May 10, 7:00 PM - 9:00 PM, location TBA</td>
</tr>
</tbody>
</table>

This syllabus is subject to revision. Changes will be announced on the course Blackboard site at http://mymason.gmu.edu/.

Important Dates

- Last day to add classes: January 26
- Last day to drop with no tuition penalty: January 26
- Last day to drop with 33% penalty: February 2

Please refer to http://registrar.gmu.edu/calendars/spring-2016/ the URL for full details.

Religious Holidays

A list of religious holidays is available on the University Life Calendar page. Any student whose religious observance conflicts with a scheduled course activity must contact the Instructor at least 2 weeks in advance of the conflict date in order to make alternative arrangements.
Attendance Policy

Students are expected to attend each class, to complete any required preparatory work (including assigned reading – see Schedule above) and to participate actively in lectures, discussions and exercises. As members of the academic community, all students are expected to contribute regardless of their proficiency with the subject matter.

Students are expected to make prior arrangements with Instructor if they know in advance that they will miss any class and to consult with the Instructor as soon as possible if they miss any class without prior notice. Any student who expects to miss more than one class session is strongly advised to drop the course and take it in a later semester when he/she can attend every class.

Departmental policy requires students to take exams at the scheduled time and place, unless there are truly compelling circumstances supported by appropriate documentation. Except in such circumstances, failure to attend a scheduled exam will result in a score of zero (0) for that exam, in accordance with Mason policy on final exams. Students should not make travel plans or other discretionary arrangements that conflict with scheduled classes and/or exams. If the University is closed due to weather or other unforeseen conditions, final exams may be rescheduled – students are strongly advised not to make plans that would prevent them from attending exams that may be rescheduled during the entire exam period.

Classroom conduct

Students are expected to conduct themselves in a manner that is conducive to learning, as directed by the Instructor. Any student who negatively impacts the opportunity for other students to learn will be warned – if disruptive behavior continues, the student will be asked to leave the classroom.

Electronic devices are potential distractions in the classroom environment. Cell phones, pagers and other handheld devices must be turned off or set to "silent" mode and not used while class is in session. Laptop computers and similar devices may be used only if such use is directly related to the classroom activity in progress – for some activities the Instructor may require that such devices not be used in order to maximize student engagement.

Communications

Registered students will be given access to a section of the Blackboard Learning System for this course. Blackboard will used as the primary mechanism (outside of lectures) to disseminate course information, including announcements, lecture slides, homework and other assignments, and scores for homework and exams.
Communication with the Instructor on issues relating to the individual student should be conducted using Blackboard Mail, Mason email, via telephone, or in person - **not** in the public forums on Blackboard. Blackboard Mail is the preferred method – for urgent messages, you should also attempt to contact the Instructor via telephone. Federal privacy law and Mason policy require that any communication with a student related in any way to a student's status be conducted using secure Mason systems – if you use email to communicate with the Instructor you **MUST** send messages from your Mason email account.

**Lecture slides are complements to the lecture process, not substitutes for it** - access to lecture slides will be provided in Blackboard as a courtesy to students **provided acceptable attendance is maintained**.

All course materials (lecture slides, assignment specifications, *etc*) are published on Blackboard in Adobe® Portable Document Format (PDF). This allows users of most computing platforms to view and print these files. Microsoft® Word (or a compatible word processing application) is required for preparing assignments – it is available on computers in the Mason open labs.

**Privacy**

Instructors respect and protect the privacy of information related to individual students.

As described above, issues relating to an individual student will discussed via email, telephone or in person. Instructors will not discuss issues relating to an individual student with other students (or anyone without a need to know) without prior permission of the student.

Assessable work other than final exams will be returned to individual students directly by the Instructor (or by a faculty or staff member or a Teaching Assistant designated by the Instructor, or via another secure method). Under no circumstances will a student's graded work be returned to another student.

Faculty and staff will take care to protect the privacy of each student's scores and grades.

**Disability Accommodations**

The Office of Disability Services (ODS) works with disabled students to arrange for appropriate accommodations to ensure equal access to university services. Any student with a disability of any kind is strongly encouraged to register with ODS as soon as possible and take advantage of the services offered.

Accommodations for disabled students **must** be made in advance – ODS cannot assist students retroactively, and at least one week's notice is required for special accommodations related to exams. Any student who needs accommodation should contact the Instructor during the first week of the semester so the sufficient time is allowed to make arrangements.
Honor Code

All members of the Mason community are expected to uphold the principles of scholarly ethics. Similarly, graduating students are bound by the ethical requirements of the professional communities they join. The ethics requirements for some of the communities relevant to Applied IT graduates are available via the following links:

- ACM Code of Ethics and Professional Conduct
- IEEE Code of Ethics
- EC-Council Code of Ethics

On admission to Mason, students agree to comply with the requirements of the Mason Honor System and Code\(^1\). The Honor Code will be strictly enforced in this course. Honor Code cases are heard by a panel consisting of students – students who meet the requirements are encouraged to nominate themselves to serve on the Honor Committee.

Any use of the words or ideas of another person(s), without explicit attribution that clearly identifies the material used and its source in an appropriate manner, is plagiarism and will not be tolerated. Dean Griffiths has mandated a "zero tolerance" policy for plagiarism within The Volgenau School. The Instructor reserves the right to use manual and/or automated means (including such services as Turnitin.com) to detect plagiarism in any work submitted by students for this course, and to direct Teaching Assistants and/or other faculty and/or staff members to do likewise in support of this course.

For this course, the following requirements are specified:

- All assessable work is to be prepared by the individual student, unless the Instructor explicitly directs otherwise.

- All work must be newly created by the individual student for this course for this semester. Any usage of work developed for another course, or for this course in a prior semester, is strictly prohibited without prior approval from the instructor.

- Students should not copy source code from internet sites for completing their home work. They can research the solution for the problem using the internet.

Students may seek assistance with assigned work (and are encouraged to do so if they feel the need), provided:

- The directions for the assigned work do not prohibit such assistance.

- Such assistance is acknowledged in the submitted work, clearly identifying the person(s) giving assistance and the nature of the assistance given.

\(^1\) Available at [www.gmu.edu/catalog/apolicies](http://www.gmu.edu/catalog/apolicies) and related Mason Web pages.
Any work to be submitted is prepared entirely an exclusively by the student submitting it. Students are expressly prohibited from sharing any assessable work for this course in any manner with other students (except students assigned as Teaching Assistants or Undergraduate Peer Mentors to this course and the student's section), unless all students involved have had their work graded and returned by the Instructor, or the Instructor has explicitly approved such sharing.

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