# CS 201

# PROGRAMMING I
## UOG, Spring 2016

Instructor:      Dr. Carl Swanson

Office:      **SCI 226**                Tel:   735-2827/25

Hours:      3:20pm—4:00pm; 5:50—6:40pm MTWTh.

TEXT.      Course notes & handouts

DESCRIPTION:

This course introduces high-level computer programming languages. Emphasis is placed on requirements analysis, program solution design, coding with basic control structures, debugging, testing, and proper documentation.

Student Learning Objectives are attached following this page.

Grading:

| Content: | | Evaluation: | |
|---|---|---|---|
| Homework | 20% | 90% -100% => | A |
| Tests & Quizzes | 35% | 80% - 89% => | B |
| Final Exam | 40% | 70%-79% => | C |
| Class Participation | 05% | 60%-69% => | D |

Tentative Course Calendar is attached, but subject to change at instructor's discretion according to the needs of the class.

**DISABILITY ASSISTANCE:**

If you are a student with a disability who will require some accommodation to participate in this class, please contact me privately to discuss your specific needs. You will need to provide me with documentation from the University of Guam's EEO/ADA Office concerning your need for accommodation(s). If you have not yet registered with the EEO/ADA Office, please do so immediately by calling 735-2244/2243/2971 to coordinate your request for accommodation.

# CS 201 –STUDENT LEARNING OBJECTIVES

2016.01.26

Through regular programming assignments, students will learn to:

1. convert binary codes to corresponding octal, hexadecimal, decimal and character values.

2. convert algebraic formulas to corresponding assignment statements.

3. properly (accurately) describe and request required input values for all assigned programs.

4. select appropriate code segments representing decision choices based on properly designed (syntactically correct) conditional expressions used in IF-THEN/IF-THEN-ELSE/CASE/SWITCH statements.

5. repeat necessary code segments through properly constructed (i.e. syntactically correct) finite or indefinite LOOPing statements.

6. recognize user/solution requirements and format the required results appropriately (according to user specifications) to display program outputs after all necessary calculations and transformations of given inputs.

7. sort and search arrays of data

## Corresponding CS/CIS Program Learning Objective:

I.     Demonstrate t**echnical competence\*** in **Programming**:
Analyze problems and create algorithmic/heuristic solutions.
Develop these using computer-programming methodologies
in several programming languages.

***\* Technical Competence*** *means to be able to:    design;  implement (build/code, test, debug); communicate effectively in written, oral, and numerical forms individually, and as part of a team.*

| Course SLOs: | Program Learning Outcomes (PLOs) | University Learning Outcomes (ILOs) | GE QR Learning Outcomes | Method of Assessment |
|---|---|---|---|---|
| CS201 SLOs 1-7 (above) | **CS PLO-I (above)** | ILOs-1, 2, 3, ILOs-5, 6 | QR-1, 2, 3 QR-4, 5, 6 | Homework assignments, quizzes and tests. |

**WHERE**, for the ILO's of the University:

**UOG Expected Student Learning Outcomes** (December 2008)

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

ILO1: Mastery of critical thinking & problem solving
ILO2: Mastery of quantitative analysis
ILO3: Effective oral and written communication
ILO4: Understanding & appreciation of culturally diverse people, ideas & values
     in a democratic context
ILO5: Responsible use of knowledge, natural resources, and technology
ILO6: An appreciation of the arts & sciences
ILO7: An interest in personal development & lifelong learning


**AND**, for Quantitative Reasoning:

**GE QR Learning Outcomes:**
UOG students will be able to apply analytical and quantitative reasoning (QR)
    to address complex challenges and everyday problems by:

1. Interpreting information presented in a mathematical and graphical form;
2. Representing information in a mathematical and graphical form;
3. Effectively calculating using quantitative data;
4. Analyzing quantitative information in order to scrutinize it and draw appropriate conclusions;
5. Evaluating the assumptions used in analyzing quantitative data
6. Communicating quantitative information in support or refutation of an argument.


**Tobacco-free/Smoke-free campus:**
UOG is a tobacco-free, smoke-free, e-cigarette free and betel nut free campus. Thank you for not using the above products on campus, and for helping make UOG a healthy learning and living environment.

**Academic dishonesty:**
All assignments and tests must be your own work. The term "plagiarism" includes, but is not limited, to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Plagiarizing in your essay or cheating on tests will be punished with a mark of 0. If a plagiarized essay is not replaced with original work I will assign you a grade of F for the course. There will be no make up for tests. If you are not sure what plagiarism is and how to avoid it in using sources for your work, see www.indiana.edu/~wts/pamphlets/plagiarism.shtml— but be careful when paraphrasing not to change the meaning of scientific information. Answers you write on the tests must come only from in your head or the information supplied in the test papers; anything else is cheating. The term "cheating" includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students' answers, using crib notes (including electronic), getting information from another person via any kind of communication;
(2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance.

# CS 201  CALENDAR

| W # | Starting Date 2016 | Lecture Topic |
|---|---|---|
| 1 | 1/21 | Introduction and Preliminaries |
| 2 | 1/26 | Review HW and SW Basics |
| 3 | 2/02 | BASIC preliminaries |
| 4 | 2/09 | Data Types & Operations |
| 5 | 2/16 | Variables |
| 6 | 2/23 | Input/Output |
| 7 | 3/02 | More Input |
| 8 | 3/09 | Expressions & Calculations |
| 9 | 3/16 | Expressions & Calculations |
| 10 | 3/23 | SPRING BREAK |
| 11 | 3/30 | Selection Statements for Choices & Decisions |
| 12 | 4/06 | Repetition |
| 13 | 4/13 | Finite-Loops |
| 14 | 4/20 | Indefinite Loops |
| 15 | 4/27 | Loops |
| 16 | 5/04 | Sorting |
| 17 | 5/11 | Searching |
| 18 | 5/18 | FINAL EXAM Happy Vacation!! |

# UNIVERSITY OF GUAM
# COLLEGE OF NATURAL AND APPLIED SCIENCES
# CLASS SYLLABUS, SPRING 2016
(Jan. 21 – May. 20, 2016)

## 1. INSTRUCTOR / BASIC INFORMATION

**Instructor:**          Dr. Y. Joseph Zou
**Course**:              CS200-02  Computer Applications and Labs
**Semester:**            Spring 2016
Meetings:                11:00am – 12:20pm, Tues. & Wed. at WH B, Rm 2
**Office:**              WH B, Room #8
**Phone:**               (671) 735-2829
**E-mail:**              yjzou@uguam.uog.edu,  cs200submission@yahoo.com
**Office Hours:**        To be announced
**CS 200 Web Page:**     www.scsite.com

## 2. CATALOG COURSE DESCRIPTION/PREREQUISITE

The course covers preparation, storage and processing of data, documents, and illustrations; Graphing, manipulating and simple analysis of data; Computer to computer communications and file transfers; Use of UOG network resources; and introduction to computer languages.

Prerequisite:    Completion of MA085 Level II or consent of instructor.

## 3. COURSE DESCRIPTION

This course provides an overview of computer applications including a brief introduction to computer concepts, computer networks and its applications in telecommunications, Internet, World-Wide-Web, computer organization and hardware, computer operating systems and other system-software, application-software, multimedia software   and their applications in Internet and cloud computing. Computer technology and their integration in teaching and learning, especially software applications in  industry, in teaching and learning, such as Microsoft Office (Word, Excel, and PowerPoint and web technology will also be covered The basic computer skills are taught for IT industry, school students and teachers   through different  hands-on  and  lab  training.  The  following  are  also  included  in  this  course: Microsoft Outlook configuration, web page writing, multimedia software production, and integration of the computer applications in education.

## 4. LEARNING OBJECTIVES

After completing this course students will be able to
- Differentiate the major components and the properties of a computer;
- Describe how hardware and software make a computer work;
- Know different kinds of computer CPU, RAM, ROM, Mass storage devices, Input/output devices, multimedia and digital imaging tools;
- Differentiate system software, application software, multimedia software, and networking and web software;

- Appreciate various applications of computer software in the 21st century;
- Master basic computer hands-on silks needed in learning and teaching in education;
- Use both GUI and Command-line operating systems (Windows, DOS, Unix/Linux and Mainframe);
- Be skillful in using Microsoft Word, Excel, Access, Power Point presentation, client-server local area networks, Internet and WWW technology through hands-on lab practice;
- Be skillful in designing, developing and presenting digital multimedia web pages, video/movie through hands-on projects.

## 5. FORMAT AND ACTIVITIES IN THE COURSE

This course will be taught through 50% of classroom lecture and 50% of hands-on lab practice of the semester. Lecture materials are in the textbook listed below (total 8 chapters). There are also 10 computer lab projects for this courses as described in the course catalog and course objectives indicated above. Two exams, midterm and final are required.

## 6. TEXTBOOKS AND SUPPLIES

*Teachers Discovering Computers:* **Integrating Technology and Digital Media in the Classroom***, 6th ed.* by G. B. Shelly, R. E. Gunter and G. A. Gunter, @Thomas Learning 2010

*Introduction to Computers, 6$^{th}$ ed. by Peter Norton's @ McGraw Hill Technology Education 2006, ISBN 0-07-297890-2, or 7$^{th}$ edition (free e-book), 2009.*

*Microsoft Office 2013: Introductory* **ISBN-10:** 1285166027 | **ISBN-13:** 9781285166025 by Misty E. Vermaat @Cengate Learning, 2014

Two 3.5-inch floppy disks, 2 CD or DVD disks.

## 7. COURSE POLICIES

**A.** GRADING

| Course Grade | Points | Approximate % of Grade |
|---|---|---|
| Middle term examination | 200 | 20 |
| Final exam | 250 | 25 |
| Attendance and class performance | 100 | 10 |
| Laboratory and assignments | 450 | 45 |
| Extra credit | 50 | |

**Point System:** 1000 total assigned points; 1050 total possible points with extra credit.

A  >= 900
B  >= 800
C  >= 700
D  >= 600
F  <= 600

**B.** Attendance: The student is expected to attend all scheduled classes and is held responsible for all class work and assignments. Continued absences will result in an unsatisfactory grade report for the course. To be counted present, a student must be in the classroom during the scheduled class or lab time for at least 80% of schedule time.

**C**. Tests: All students are required to be present for a test. If something extreme happens and you can not make the test time, the student should immediately contact the instructor by phone or in person to receive permission before the test. Permission will be granted only under extenuating circumstances.

**D.** Makeup Tests: Makeup tests will be given only under extenuating circumstances (major illness, death in the family, etc.). Students desiring a Makeup Test must make arrangements with the instructor to take the test. A Makeup Test must be scheduled during office hours immediately after he/she returns school. If a student fails to take a Makeup Test within a week after the regular the scheduled test, that student will receive a ZERO for the test missed.

**E**. Assignments: All assignments will be due on the DUE DATE. Late submission will be received for final grade consideration but will not be graded.

**F**. Final Exam: NO MAKEUP WILL BE GIVEN FOR THE FINAL EXAM. A grade of ZERO will be given to any student not present for the final.

**8. Accommodation**: If you a student with a disability who will require an accommodation to participate in this course, please contact me privately to discuss your special needs. You will need to provide me with documentation concerning your need for accommodations from EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243(TTY).

**9. Cheating Policy**. Students are expected to uphold the school's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work examinations, reports, and projects must be that of the student's own work.

The penalty for violating the honor code is severe. Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

**10. Submission Standard**.
Make sure your name, student ID, and exercise number appear in the upper-left corner. If an exercise has multiple sheets, then staple them together. Do not staple different assignments together. Disorganized assignments (pages out of order, mislabeled, unreadable, etc.) will receive a grade of zero. If there are multiple sheets are to be handed in, then sequence them according to the order you were told to print them in the exercise.

**11. Teamwork or Group work.**
In the course project, students will be divided into several groups. Students will work as a group or team to help each other including assistance to those team members who are lagging behind classes or projects. A project's score is decided by two parts: 50% is from your group work (team performance) and another 50% is from individual effort.

**12. Tobacco-Free Campus Policy.** University of Guam is a non-smoking campus, please don't smoke in classroom or anywhere in the campus of this university.

**13. Course Tentative Schedule**

| Week | Lecture and Reading Assignments | Laboratory Reading and Hands-on Assignments | Test Points | Lab Points |
|---|---|---|---|---|
| 1 | 1. Introduction to Computers, Windows Operating Systems and Microsoft Office 2003. | Lab 1<br>a) Use Mouse and GUI and create a free yahoo email account and use it.<br>b) Use Internet and WWW to apply for Networking jobs on-line. | | 40 |
| 2 | 2. Intro. to computers and their applications | Lab 2:<br>Use Command-line User Interface to manage directories, files and Internet applications | | 40 |
| 3 | Communications, Networks | Lab 3: Microsoft Word Project 1 | | 30 |
| 4 | The Internet and the WWW | Lab 4: Microsoft Word Project 2 | | 30 |
| 5 | Application Software, System Software and | Lab 5: Microsoft Excel project 1 | | 40 |
| 6 | Productivity Tools | Lab 6: Microsoft Excel Project 2 | | 40 |
| 7 | Midterm Review, Preparation and Midterm Exam | | 200 | |
| 8 | | Lab 7: MS Power Point Project 1 | | 30 |
| 9 | Computer Hardware | Lab 8: MS Power Point Project 2 | | 30 |
| 10 | Multimedia Technology and Software | Lab 9, Integration I: Web page Design and Development using multiple skills | | 70 |
| 11 | | | | |
| 12 | Integration of Technology and Curriculum into Classroom | Lab 10, Integration II: Multimedia Software Development and Video/Movie Presentation | | 100 |
| 13 | | | | |
| 14 | Security Issues, Ethics, and Emerging Technologies | 1. Webpage & movie Presentations<br>2. Prepare final exam questions on theory, concept, and labs. | | |
| 15 | | | | |
| 16 | Final Review, Preparation and Exam | | 250 | |

**UOG Expected Student Learning Outcomes**

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

ILO1: Mastery of critical thinking & problem solving
ILO2: Mastery of quantitative analysis
ILO3: Effective oral and written communication
ILO4: Understanding & appreciation of culturally diverse people, ideas & values in a democratic context
ILO5: Responsible use of knowledge, natural resources, and technology

ILO6: An appreciation of the arts & sciences
ILO7: An interest in personal development & lifelong learning


**GE QR Learning Outcomes:**
UOG students will be able to apply analytical and quantitative reasoning (QR) to address complex challenges and everyday problems by:

1. Interpreting information presented in a mathematical and graphical form;
2. Representing information in a mathematical and graphical form;
3. Effectively calculating using quantitative data;
4. Analyzing quantitative information in order to scrutinize it and draw appropriate conclusions;
5. Evaluating the assumptions used in analyzing quantitative data
6. Communicating quantitative information in support or refutation of an argument.

**Computer Science Program Learning Outcomes**

**CS PLO-1:**  (GE) Demonstrate competence with Windows and basic MS Office applications especially MS WORD, EXCEL, and PowerPoint.

**CS PLO-2:**  Demonstrate technical competence in Programming:

- Analyze problems and create algorithm/heuristic solutions.

**CS PLO-3:**  Demonstrate technical competence in Programming:

- Develop these using computer-programming methodologies in several programming languages.

**CS PLO-4:**  Demonstrate technical competence in Systems:

- Identify and analyze system requirements, criteria and specifications.

**CS PLO-5:** Demonstrate technical competence in Systems:

- Design and implement human sensitive/compatible computer based systems using appropriate tools, methods and techniques.

**CS PLO-6:**  Demonstrate technical competence in Systems:
- Effectively manage, organize, and retrieve all forms of information.

**CS PLO-7:**  Demonstrate technical competence in Systems:
- Evaluate system design solutions and their risks.

**CS PLO-8:**  Demonstrate technical competence in Databases:
- Be able to design and implement a functional database.

**CS PLO-9:**  Demonstrate technical competence in Networks:
- Be able to design, install, administer, and maintain a computer network.

**CS PLO-10:**  Demonstrate technical competence in Networks:
- Be able to setup, install, and use two different operating systems and be able to program client-server applications for them.

**CS PLO-11:** Develop socially, professionally, and ethically utilize these technical skills to construct robust, secure, beneficial (commercial, educational, social) systems i.e. NO Spam, Phishing, Hacking, Deceptive, Fraudulent, Criminal, or Terroristic systems.

**CS PLO -12**: Be able to process multimedia data including text, graphic, animation, audio and video data, and be skillful in developing web-pages and short-movies.

\* Technical Competence means to be able to design, implement (build/code, test, debug), communicate effectively (in written, oral, and numerical forms), individually, and as part of a team.

| Course SLOs: <br><br> *After completion of CS200, students will be able to* | Program Learning Outcomes (PLOs) | University Learning Outcomes (ILOs) | GE QR Learning Outcomes | Method of Assessment |
|---|---|---|---|---|
| • Differentiate the major components and properties of a computer | CS PLO-4 <br> CS PLO-5 <br> CS PLO-9 | ILO-5 <br> ILO-6 | QR-6 | Hands-on projects, class-work & homework, quizzes and tests. |
| • Describe how hardware and software make a computer work | CS PLO-7 <br> CS PLO-10 | ILO-1 <br> ILO-2 <br> ILO-5 | QR-2 <br> QR-4 | Hands-on computer projects, quizzes and tests. |
| • Use different kinds of computer CPU, RAM, ROM, Mass storage devices, Input/output devices, multimedia and digital imaging tools | CS PLO-6 <br> CS PLO-7 | ILO-5 <br> ILO-6 | QR-2 <br> QR-6 | Class and home projects, quizzes and tests. |
| • Differentiate system software, application software, multimedia software, and networking and web software | CS PLO-4 <br> CS PLO-5 <br> CS PLO-9 <br> CS PLO-12 | ILO-1 <br> ILO-2 <br> ILO-5 <br> ILO-6 | QR-2 <br> QR-3 <br> QR-4 | Hands-on projects, class-work & homework, quizzes and tests. |
| • Appreciate various applications of computer software in the 21st century | CS PLO-4 <br> CS PLO-5 <br> CS PLO-6 | ILO-1 <br> ILO-2 <br> ILO-5 | QR-1 <br> QR-2 <br> QR-3 | Assignments on homework, quizzes and tests. |
| • Master basic computer hands-on silks needed in learning and teaching in education | CS PLO-7 <br> CS PLO-11 <br> CS PLO-12 | ILO-2 <br> ILO-5 | QR-2 <br> QR-4 <br> QR-6 | Hands-on projects, class-work & homework, quizzes and tests. |
| • Use both GUI and Command-line operating systems (Windows, DOS, Unix/Linux and Mainframe) | CS PLO-1 <br> CS PLO-2 <br> CS PLO-3 | ILO-2 <br> ILO-5 <br> ILO-6 | QR-1 <br> QR-2 <br> QR-6 | Hands-on projects, class-work & homework, quizzes and tests. |
| • Be skillful in using Microsoft Word, Excel, Power Point presentation, client-server local area networks, Internet and WWW technology | CS PLO-1 <br> CS PLO-7 <br> CS PLO-8 <br> CS PLO-9 <br> CS PLO-10 | ILO-1 <br> ILO-3 <br> ILO-4 <br> ILO-6 | QR-3 <br> QR-4 <br> QR-5 <br> QR-6 | Hands-on projects, class-work & homework, quizzes and tests, Team/Group work. |
| • Be skillful in designing, developing and presenting digital multimedia webpages, video or movie through hands-on projects | CS PLO- 2 <br> CS PLO -3 <br> C PLO -12 | ILO-1 <br> ILO-3 <br> ILO-7 | QR-6 <br> QR-2 <br> QR-6 | projects, class-work & homework, quizzes and tests, Group/team work. |

# UNIVERSITY OF GUAM
## COLLEGE OF NATURAL AND APPLIED SCIENCES
## COURSE SYLLABUS

1. **COURSE / INSTRUCTOR INFORMATION**
   Course Number and Title: **CS202 Programming II**
   Semester: Spring 2016
   Class Hours: 8:00 – 9:50 AM, Monday & Wednesday
   Classroom: Computer Science Lab (Warehouse B2)
   **Course Homepage (UOG Moodle): http://campus.uogdistance.com**
   Instructor: Dr. Frank Lee
   Telephone: 735-2826
   E-Mail: flee@uguam.uog.edu
   Office: Warehouse B6
   Office Hours: 10:00 – 11:59 AM (M, W), 11:00-11:59 AM (T, Th)

2. **CATALOG COURSE DESCRPTION / PREREQUISITE**
   The main purpose of this course is to learn object-oriented programming and its applications in multimedia. This course introduces computer concepts and problem solving methods. Topics include algorithms, data types, objects, classes, encapsulation, and exception handling. Emphasis is placed on structured program design. Prerequisite: CS200, CS201, and MATH161a or higher.

3. **INTENDED STUDENT LEARNING OUTCOMES (LEARNING OBJECTIVE)**
   - **For Java Programming**
     - Concepts of objects and classes
     - Arithmetic operators, data types and methods (functions)
     - Arrays, loops (while and for), variables and comments
     - Conditional statements using if and else
     - Boolean operators AND, OR and NOT
     - Java API, inheritance, algorithm
     - Class (static) methods and private (helper) methods
     - Using a debugger, overload constructors, runtime exceptions
     - Javadoc comments, and dynamic binding
     - Creating and modifying text and files, making text for the Web
     - Computer (processor) and program (algorithm) speeds
     - Compiler, interpreter, and computer storage options
     - JavaScript and Web page programming
   - **For multimedia programming**
     - Images, colors, shapes, and sounds manipulation
     - Picture manipulations (e.g. mirror, compose, blend, rotate, scale)
     - Sound manipulations (digitizing, volume, composition, reverse, mirror, echoes, frequency, etc.)
     - MIDI, MP3, encoding, manipulating and creating movies

   **Matrix for SLO, PLO, ILO and GEQR (See #13 and 14 below)**

| Course SLOs: | Program Learning Outcomes (PLOs) | University Learning Outcomes (ILOs) | Method of Assessment |
|---|---|---|---|
| CS202 SLO-1: Upon successful completion of this course, students will be able to describe the steps involved in the problem solving process. | CS PLO-2 CS PLO-4 | ILO-1 ILO-2 | Questions on homework assignments, quizzes and |

| | | | tests. |
|---|---|---|---|
| CS202 SLO-2: Upon successful completion of this course, students will be able to utilize various design tools to develop correct solutions to problems. | CS PLO-3 CS PLO-5 | ILO-1 ILO-2 ILO-5 | Computer Programming Project |
| CS202 SLO-3: Upon successful completion of this course, students will be able to succinctly document both the problem and the solution in given programming tasks. | CS PLO-6 | ILO-5 ILO-6 | Programming assignments on homework, quizzes and tests. |
| CS202 SLO-4: Upon successful completion of this course, students will be able to apply object-oriented programming techniques to develop real world applications (define objects and their properties, constructing appropriate methods for each). | CS PLO-5 | ILO-1 ILO-2 ILO-5 ILO-6 | Computer Programming Projects |
| CS202 SLO-5: Upon successful completion of this course, students will be able to code, test and debug efficient, event-driven programs to implement solutions of simple problems in a visual development environment using the Java programming language. | CS PLO-5 | ILO-1 ILO-2 ILO-5 ILO-6 | Programming assignments on homework, quizzes and tests. |

## 4. CONCEPTUAL STRUCTURE OF THE COURSE
- Introduction to Java & Programming
- Pictures & Graphics
- Sounds & Music
- Text & Files
- Animation & Movies

## 5. FORMAT AND ACTIVITIES IN THE COURSE
- PowerPoint lectures
- In-class discussions
- Programming Labs
- Programming Project
- Exams

## 6. REQUIRED AND RECOMMENDED TEXTS AND/OR STUDY GUIDES
REQUIRED TEXTBOOK: Introduction to Computing and Programming with Java –
   A Multimedia Approach.
AUTHOR: Mark Guzdial and Barbara Ericson
PUBLISHER: Prentice Hall, 2007
ISBN: 0-13-149698-0

## 7. ADDITIONAL MATERIALS, RESOURCES AND/OR EQUIPMENT
- A **USB flash memory stick** to store your quizzes, projects, exams, etc.
- DrJava: A Java programming tool.
- Reference Book: Java for Everyone, Second Edition.
   AUTHOR: Cay Horstmann
   PUBLISHER: John Wiley & Sons, 2013
   ISBN: 978-1-118-06331-6

## 8. LIST ASSIGNMENTS, TERM PAPERS, EXAMS, ETC.

- Homework.
- Midterm and Final Exams.
- Programming Project.

## 9. METHODS OF EVALUATION AND GRADES
Evaluation Methods:
   Class Attendance 10%, Project 10%, Labs 10%, Homework 20%, Midterm Exam 22%, Final Exam 28%.
   **Note:** There will be a **penalty (3% discount per day)** for late submissions.
Grades: 90-100: A, 80-89: B, 70-79: C, 60-69: D, 0-59: F

## 10. COURSE POLICIES
- Class attendance is **mandatory**. Students have to sign-in for each class.
- There are no make-up exams, unless with the consent of instructor.
- Late labs and homework assignments with receive late-penalties.
- **Cheating policy**: Students shall be guilty of violating the honor code if they:
  1. Represent the work of others as theirs.
  2. Use or obtain unauthorized assistance in any academic work.
  3. Give unauthorized assistance to other students.
  4. Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
  5. Misrepresent the content of submitted work.

## 11. SPECIAL NEEDS (EEO/ADA):
**Accommodation:** If you a student with a disability who will require an accommodation to participate in this course, please contact me privately to discuss your special needs. You will need to provide me with documentation concerning your need for accommodations from EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY).

## 12. COURSE CALENDAR OR SCHEDULE

| Week | Chapter | Homework | Remark |
|---|---|---|---|
| 1 | Course introduction & student information collection | | |
| 2 | Chapter 1 | | |
| 3 | Chapter 2 | Chapter 1 Homework | |
| 4 | Chapter 3 | Chapter 2 Homework | |
| 5 | Chapter 4 | Chapter 3 Homework | |
| 6 | Chapter 5 | Chapter 4 Homework | |
| 7 | Chapter 6 | Chapter 5 Homework | |
| 8 | **3/7 (Monday)** | **Chamorro Heritage Day (no class)** | |
| | **3/8 (Tuesday)** | **Charter Day (no class)** | |
| | Chapter 7 | | |
| 9 | **Midterm Exam** | **Chapters 1-6** | |
| | Chapter 7 | Chapter 6 Homework | |
| 10 | **3/21-25 (Monday - Friday)** | **Spring Break (no class)** | |
| 11 | Chapter 8 | Chapter 7 Homework | |
| 12 | Chapter 9 | Chapter 8 Homework | |
| 13 | Chapter 10 | Chapter 9 Homework | |
| | | **Project proposal due** | |
| 14 | Chapter 11 | Chapter 10 Homework | |
| 15 | Chapter 12 | Chapter 11 Homework | |
| 16 | Chapter 14 | Chapter 12 Homework | |
| | | **Note:** Skip Chapter 13 | |

| 17 | | Chapter 14 Homework |
| | **5/9 (Monday)** | **Project Presentation** |
| | **5/11 (Wednesday)** | **Project Presentation** |
| 18 | **5/16 (Monday, 8:00 AM)** | **Project report due** |
| | **5/16 (Monday, 8:00-9:50 AM)** | **Final Exam (comprehensive)** |

Note:    This class schedule is subject to change during the semester.


## 13. UOG Expected Student Learning Outcomes (December 2008)

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

ILO-1: Mastery of critical thinking & problem solving
ILO-2: Mastery of quantitative analysis
ILO-3: Effective oral and written communication
ILO-4: Understanding & appreciation of culturally diverse people, ideas & values in a democratic context
ILO-5: Responsible use of knowledge, natural resources, and technology
ILO-6: An appreciation of the arts & sciences
ILO-7: An interest in personal development & lifelong learning


## 14. Computer Science Program Learning Outcomes

**CS PLO-1:**  (GE) Demonstrate competence with Windows and basic MS Office applications especially MS WORD, EXCEL, and PowerPoint.
**CS PLO-2:**  Demonstrate technical competence in Programming:
- Analyze problems and create algorithm/heuristic solutions.
**CS PLO-3:**  Demonstrate technical competence in Programming:
- Develop these using computer-programming methodologies in several programming languages.
**CS PLO-4:**  Demonstrate technical competence in Systems:
- Identify and analyze system requirements, criteria and specifications.
**CS PLO-5:** Demonstrate technical competence in Systems:
- Design and implement human sensitive/compatible computer based systems using appropriate tools, methods and techniques.
**CS PLO-6:**  Demonstrate technical competence in Systems:
- Effectively manage, organize, and retrieve all forms of information.
**CS PLO-7:**  Demonstrate technical competence in Systems:
- Evaluate system design solutions and their risks.
**CS PLO-8:**  Demonstrate technical competence in Databases:
- Be able to design and implement a functional database.
**CS PLO-9:**  Demonstrate technical competence in Networks:
- Be able to design, install, administer, and maintain a computer network.
**CS PLO-10:**  Demonstrate technical competence in Networks:
- Be able to setup, install, and use two different operating systems and be able to program client-server applications for them.
**CS PLO-11:**  Develop socially, professionally, and ethically utilize these technical skills to construct robust, secure, beneficial (commercial, educational, social) systems i.e. NO Spam, Phishing, Hacking, Deceptive, Fraudulent, Criminal, or Terroristic systems.

* Technical Competence means to be able to design, implement (build/code, test, debug), communicate effectively (in written, oral, and numerical forms), individually, and as part of a team.