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CS240 - Syllabus

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1. General Information

| Classroom: Henry Hall - H121 | | Email: pmartins@chaminade.edu | |
|------------------------------|-----------------|---|--|
| Instructor: Dr. Martins | | Schedule: mySchedule | |
| Office Number: Keiffer #26 | | Web: http://cs.chaminade.edu/faculty/pmartins | |
| Telephone: (808) 739-4601 | | Fax: (808) 440-4249 | |
| Office Hours: | | Extra Office Hours: email me | |
| Lecture hours: | See | Course Credit: 4 | |
| Lab hours: | <u>schedule</u> | Prerequisites: CS150 | |

2. Course Description

This course is intended to introduce to and guide the student through the basic concepts in 1 C and C++ programming language. Therefore it explores both structured and object-orient paradigms.

The idea is that the student leave the course being fluent in the basic structures of C/C programming and able to explore more advanced programming techniques (such as dynar binding, inheritance, polymorphism) that will take them to the next level.

The laboratory classes are designed to consolidate the student's experience with 1 programming language, by allowing them to write the algorithm, edit, compile, debug and to the applications under the instructors supervision. Visual C++ 6.0 initially and/or Visual Studio .NET will be primarily used for that purpose.

3. Learning Outcomes

- To understand the IPO structure of every computer program;
- To understand the role of an algorithm in programming;
- To understand the use of control structure;

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- To understand how data is stored, addressed, and used.
- To understand the relationship between the C language and the C++ language.
- To be able to specify the input, processes and output of a program;
- To be able to document, code, test, and deliver C and C++ programs;
- To be able to debug a program produced by someone else.

4. Topics

- Types, classes and objects
- Input and output objects
- Standard features of C++
- Decisions
- Iteration
- Functions
- Classes and objects
- Pointers

5. Textbooks

| Title | ISBN# / Editor | Author | Priority |
|---|----------------|-------------------------------|----------|
| Structured and Object-Oriented Problem Solving Using _C++ | 0-13-028451-3 | Andrew C. Staugaard, Jr | Required |

6. Evaluation

| Evaluation | # Points | Tentative Dates |
|------------------------|----------|-----------------|
| First test (T1) | 0-10 | See Schedule |
| Second test (T2) | 0-10 | |
| Third test (T3) | 0-10 | |
| Final exam (T4) | 0-10 | |
| First Assignment (A1) | 0-15 | |
| Second Assignment (A2) | 0-15 | |

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| Quizzes (QZ) | 0-30 |
|--------------|------|

- The final grade (FG) will be determined as follows: FG = T1+T2+T3+T4+Qn+A1 + A2. Extest will be graded according to the scale above.
- For example, a student that obtained 10 points in the first test, 10 in the second test, 10 in the third test, a total of 7 points in the final exam, 30 in the quizzes, 10 in the first assignment, 14 in the second assignment, will accumulate a total of 91 points (meaning final grade A).
- Quizzes will be the mean average of all quizzes taken, scaled from 0-30. It can be calculated as QZ = 3 * (Q1 + Q2 + Q3 +...Qn)/n, where n is the total number of quizzes it this course. Each quiz will be graded in a scale from 0-10.
- For example, if there are five quizzes, then QZ = 3*(Q1 + Q2 + Q3 + Q4 + Q5)/5.
- The final exam is comprehensive.

Special Rules and Other Notes:

1. The lowest grade **midterm test** (i.e. T1, T2 or T3) will be replaced by the final examination (T4), if and only if the final examination grade is greater than the lowest grade test.

This rule is based on the fact that the final examination is comprehensive, and is intende motivate students who do not perform well on earlier exams to persevere and overce those setbacks by further study. It also solves the problem of occasional emergencies we may cause a student to miss a midterm examination.

7. Grading

| Grade | Interpretation | Points |
|-------|--|--------|
| А | Unusual degree of intellectual initiative. | 90-100 |
| В | Superior work done in a consistent and intellectual manner. | 80-89 |
| С | Average grade indicating a competent grasp of subject matter. | 70-79 |
| D | Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work. | 60-69 |
| F | Failed to grasp the minimum subject matter; no | 00-59 |

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credits given.

8. Students Rights & Responsibilities

Please refer to the student rights and responsibilities in the Student Handbook.

9. Attendance

Experience has shown a high correlation between absenteeism and low grades. Role will taken at each class. Attendance will be weighed in determining your final grade. Students expected to attend all classes. If a student misses class, it will have the following adverse e on his/her grade:

- Grade lowered by one grade if 7 times absent.
- Student will be withdrawn from the course, or take a grade of "F," if 10 or more ti absent.

10. Quizzes

Pop quiz may be given at any time without advance announcement, if I get the impression students are not keeping up with the course. There will be no make-ups for quizzes, but the storgiveness rule applies as for attendance.

11. Communication

If you are experiencing difficulty or are concerned about your progress, please contact me away. Problems are usually easier to solve when they are addressed early.

You are required to verify that your e-mail address is included in the class e-mail list. I will severyone a message at the start of the term. If you don't get that first message, make sure are added to the list.

Check regularly for electronic mail sent to you containing information about this course. You also encouraged to use e-mail to ask questions and report problems. As a Chaminade stuc you have an email account firstInitial.LastName@student.chaminade.edu.

Because of past problems with impersonation, I cannot reply to e-mails related to this course f other e-mail addresses.

This syllabus and other information, such as course announcements, assignments, lecture not and some useful links to other web sites, will be posted on the CS Department's web site for course, which is located at http://cs.chaminade.edu/faculty/pmartins. Access to most of materials on that site will require a special login name and password, which will I will provide

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you via e-mail.

12. Punctuality

Punctuality will also be weighed in determining your final grade. Students are expected to be time for class. If a student is late to class (15 minutes or more) or leaves class early (15 min or more), it will have the following adverse effect on his/her grade:

- Grade lowered by one grade if 7 times late or leaving class early.
- Student will be withdrawn from the course, or take a grade of "F," if 14 or more times lea class late or early.

13. Exams

Missed exams will not be covered with extra exams or make up exams. A missed midterm wi replaced by the final exam.

Students are not allowed to do exams before or after the set date. You know the date of all you exams, therefore it is expected that you organize your trips around these dates.

Upon receiving your graded exam you should check for any discrepancies. Complaints will no accepted after you leave the classroom or if the exam was originally written using a pencil. discrepancy is found the entire exam will be revised and not only the problem found. A revisic an exam may increase or lower your grade.

You always have the entire class time to answer the exam. You should not expect any extensi to this time.

Students are expected to do their own exam. Copying from each other or from published sou is prohibited. The penalty for copying on tests, exams or quizzes is: A zero mark for that itelevaluation for the first time, and an F for the course for the second occurrence.

14. Assignments

All assignments are due on the day indicated on them and must be turned in as specified. Description of the lateness. Whether to accept any late turn-ins of assignments will entirely at my discretion. If a late assignment is accepted, the score will ordinarily be reduced. amount of the reduction will be entirely at my discretion, and may depend on how late assignment is. In any case, no work will be accepted for grading after a solution is discusse handed out, either in the class or on the web. Late submissions without a substantial reason satillness will generally be subject to penalties as follows:

- Same day as due but after desired time....03%
- Next day......10%
- Two to four days:.....20%

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• Five days or more:.....50%

There are certain expectations concerning the format and substance of assignments. They wi assessed based on the following criteria:

- <u>Comprehensiveness</u>. Elaborate as much as you can on the issues or topics raised. Avoid giving short or incomplete answers.
- Originality. When formulating your answers, use your creativity (your own words, statements, programs etc..) i.e. avoid paraphrasing the text book.
- <u>Correction</u>. Needless to say, the ideal answer will be correct from a logical viewpoint.
- Organization. The structure, organization and clarity of the material that you
 present (program or document) is also part of the criteria for assessment and will
 also be considered in grading. Unless otherwise stated, only electronic document
 files are accepted no handwriting please.

A major requirement of your programs is their coverage. No credit will be given for programs cannot be compiled or that do not work on any of the test cases. Beyond this, a significant po of the credit will be determined by how many of the test cases, and also which of them, program handles correctly.

<u>Plagiarism.</u> While informal discussion is encouraged, students are expected to do their own w Copying from each other or from published sources is prohibited, including "cut and paste" I websites. The penalty for copying on assignments is applicable to all parties involved, i.e. the who copy an assignment and those who share an assignment labeled "individual". It consists a zero mark for that item of evaluation for the first time, and an F for the course for the secoccurrence.

<u>Backup.</u> Always keep a backup of all assignments and quizzes that you submit during semester, in case you need to re-submit it later on.

<u>Notifications.</u> Needless to say, it is your responsibility to notify your instructor as soor possible of any events that may prevent you from doing your assignment (such as compute application malfunctioning in one our labs, essential information missing or misrepresented web page and so on), so that the appropriate actions can be taken to address the problem.

15. Participation

The study of much of Computer Science is cumulative (*i.e.*, understanding earlier material well necessary to grasp later material. Do not allow yourself to fall behind, by postponing studying, then figure you will jump ahead to catch up with the rest of the class.

16. Remarks

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 <u>Copies.</u> All graded work will be returned in class for examination and taken back for course records. Students who miss class are responsible for picking up their papers no than one week after the start of the next semester. Work that is not picked up by then be discarded. The one exception are final examinations. The original copies of all examinations will be retained in the department for six months.

- Note. The contents of this syllabus can be changed with advance notification;
- <u>Class Meetings</u>. For a few of the scheduled days, shown in the course calendar, there be no regular class because I am required to travel on University business. This class will be made up by specially scheduled class meetings (to be arranged) in which stud will demonstrate their projects for me and the other students who are able to attend. The meetings will be arranged at multiple times, if necessary, so that every student demonstrate his or her project.

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