

IST480 SpTp:Advanced C++ Problem Solving. Course Syllabus.

Class Room: Morrow Library 122

Class hours: Tuesday, Thursday 9:30am - 10:45 am

Instructor: Daniel Dementiev

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Office hours: [see here](#)

Textbook:

The following resources are recommended for this course:

- **Big C++** by Cay Horstmann and Timothy Budd, ISBN: 0-471-47063-5.
- **Visual C++ .NET How to program** by Deitel, Deitel, Liperi, and Yaeger. ISBN: 0-13-437377-4.
- **C++ and object-oriented programming** by Kip R. Irvine, ISBN: 0-02-359852-2.
- **Object-oriented Programming Using C++** by Ira Pohl. ISBN: 0-8053-5384-4.
- **Absolute C++** by Walter Savitch. ISBN: 0-201-70927-9.
- [Microsoft Knowledge Base](#)

Computer Requirements:

Access to a WWW browser and Visual Studio .NET is required.

Course Description:

Student will explore topics in object-oriented programming in C++ and Windows system programming in both theoretical and practical way.

Credit:

The course is three (3) credit hours. It includes classroom lectures, exams, and lab projects.

Pre/co-requisites:

- IST163: Programming Practicum with C++
- IST236: Data Structures

Desired Objectives/Outcomes:

By the end of this course, students should be able to:

- write object-oriented applications using C++ using virtual functions, inheritance, and polymorphism
- create graphical applications for Windows using Visual Studio .NET
- understand basic ideas of the .NET platform
- design and develop relatively big programming projects in Visual

Instruction method:

There will be approximately 3 contact hours of classroom lecture per week. This class will be based on practical approach to network problems. Students may work on their assignments in Morrow Library 121 and in Prichard Hall computer labs.

Grading Policy:

Final grades are based on performance in assignments, and exams as indicated below:

Homework Assignments: 20%

Group Projects: 40%

Quizzes: 15%

Final exam: 25%

Note that homeworks assignments are individual work and projects will be done in groups.

In determining the overall grade for a project, you can expect the following grades based on performance:

- A – Excellent work that meets and/or exceeds all of the requirements for a given project, code compiles and works for multiple test samples, all code and associated files are well documented, and the code is written efficiently.
- B – Good work that meets all of the requirements of the assignment, but may have errors in documentation or coding, or contains code that may not work with all possible data samples.
- C – Average work that meets all of the requirements of the assignment, but is missing one or more of the items in its entirety that is mentioned in terms of an A grade.
- D – Below average work which fails to meet one or more of the requirements of the assignment.
- F – Unacceptable work, which fails to meet two or more requirements for an assignment, or has code that will not compile and execute.

Final letter grades are determined based on the following grading scale:

90-100%	80-89%	70-79%	60-69%	Below 60
A	B	C	D	F

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

Policy Statement:

Make-up Exams and Late Penalty: Make-up exams will not be given except under unusual circumstances and satisfactory written justification. Any student who misses an exam due to an unexcused absence will receive a grade of zero for that exam with no opportunity for make-up or substitution. University excused absences or those occurring with a good reason will be excused. Make up exams must be taken within one week of the original scheduled date. The decision whether to give a make up exam rests with the instructor.

Passing grade: Programming assignments and exams are required parts of the course and must be satisfactorily completed to pass this course. A student must have a passing performance on each part. A failing grade on a component may result in a failing grade in the course

Withdrawal Policy:

The University withdrawal policy is followed in this course. The last day to drop an individual course for the Spring of 2006 is March 17, 2006.

University Holidays:

The class is officially dismissed on the following dates:

Martin Luther King, Jr. Holiday	Monday, January 16, 2006
Spring Break	March 19, 2006 – March 26, 2006
Last Class Day	Friday, April 28, 2006

Effort Required:

As a 400-level course, this course is provided as an advanced course, which also requires a great amount of lab work. For every one hour in class, the student is expected to put in an effort of [at least 4 hour](#) outside the class for studying and researching. Because of background, some students may have to put in additional effort.