

Welcome to CSE 143

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University of Washington
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Slides based upon those by Martin Dickey, Hal Perkins, and instructors of previous quarters

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Today's Topics

- Course Overview
- Administrative Information
- Then the fun stuff starts ...
Introduction To C++

A version of these slides is on the Web and in the course packet

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Staff

- Teaching Assistants:
 - Eric Vee, Joshua Doubleday, Man Chun Liu, Steve Martin, Shawn Bonham, Jeff West
- Consultants:
 - Yes
 - Not as many as for 142
- Course Administrator
 - Melissa Albin
- Instructional Technologist
 - Dan Boren

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Are You Ready?

- 143 is a direct continuation of 142
- Must have a firm grasp of C basics, including functions/parameters, arrays, structs, etc. and terminology.
 - No review!
- Should be able to read a problem description and organize (design) a program to solve it
 - Should be able to analyze, design, debug, and test the program
 - Review old 142 assignments
- Should be able to read and analyze an existing C program of moderate complexity
 - assuming it uses only features we have studied
- Review old CSE 142 exams, and assignments to see if you could handle them

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Can't Get In?

- New spots are likely to open up this week
 - Keep trying
 - No waiting lists, no entry codes
- Until then –
 - You are welcome to attend this week and do assignments, but no guarantees
 - Go to any quiz section tomorrow

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Content Overview

- More advanced programming
 - Using C++
Initially not much different from C
 - Big topics: classes, dynamic memory, recursion
 - Eventually, object-oriented programming
- Software engineering
 - Abstraction, modularity, information hiding, robustness
- Data structures and algorithms
 - Lists, stacks, queues, trees, hash tables
 - Algorithms and their analysis

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Homework Projects

- Will be substantially more complex than 142
 - More realistic problems, multiple source files, data files
 - Using the Debugger will help!
 - Programs have to work, but just working isn't enough!
- Unless announced otherwise, you are expected to do your own work – see the academic misconduct guidelines in the course information pages
- All programs turned in are cross-checked for similarities

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Homework Projects

- Towards the end of the quarter...
- Maybe some graphics
- Maybe a team project
- Deadlines
 - Something (almost) every week
 - Major projects roughly every two weeks
 - Big projects may have multiple due dates
 - Inflexible! Electronic turnin deadline @ 9:30 pm, normally Wednesday evenings
 - Paper receipt due in sections next morning
 - But not all assignments will follow this schedule!

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You've Got Homework!

- Homework 0 due Wednesday night!
 - Very simple program – purpose of this assignment is to work out the mechanics of building a C++ project and turning it in.
- HW 1 will be out by the end of the week

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Grading

Approximate percentages (may change slightly):

- ~5 projects 40%
- Midterm exam 20%
- Final exam 30%
- Quizzes & other 10%

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Tests

- May have all types of questions: short answer, programming, and multiple-choice sections.
- Midterm Exam (in sections)
 - Thursday, July 19, 2001
- Final Exam:
 - 10:50-11:50 p.m. Friday, August 17, 2001
- It will not be possible to give the tests on any other days. Please don't make plans that would keep you from taking the tests.

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Quizzes

- Quizzes: short, given at the beginning of quiz section, not-quite-pop, no make-ups
- Questions will be ones you should be able to answer if you are keeping up with lectures, readings, and homework
- Grading will be 0/1
 - ✓ (ok)
 - ✓ – (credit, but you should have been able to do better)
 - 0 (no credit)
- There may even be a couple of quizzes in lecture!

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Textbooks

- Carrano, Helman and Veroff, *Data Abstraction and Problem Solving with C++: Walls and Mirrors*, 2nd ed, Addison-Wesley, 1998.
- Why have a textbook?
 - Explanations
 - Reference
 - Examples
 - Hard to do interesting, extended examples in lecture
- Bookstores have many other C++ books
 - Browse and pick one you like

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Course Packet

- Available at: Professional Copy and Print, 42nd and U. Way (approximately \$10.00-\$12.00).
- Contains a draft of the slides
 - Based on Winter/Spring 2001
 - Also available on the web until revised versions posted
- Revised slides will be posted sometime after completion of each topic

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Course Web

- <http://www.cs.washington.edu/education/courses/143/CurrentQtr/>
- alias: <http://www.cs.washington.edu/143>
- Contains:
 - Course Information
 - Mailing List Archives
 - Lab & Office Hours, Programming Assignments, Links to Previous Quarters, etc. etc.
- You are expected to know your way around the web!

Check it frequently!

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Newgroup & Email

- **uwash.class.cse143.bboard**
 - Read regularly
 - Open discussion by students and staff
 - Please don't post your homework solutions!
 - See web page for details
- **email**
 - You **must** have a UWNetID
 - You are expected to read email at the address you've given the registrar
 - Archive of mailing lists on web

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Mail Aliases

- **cse143-instructor@cs:** Send mail to instructor
 - Attach a small picture of yourself if you can to help me learn your name!
 - Please try to limit to things that require instructor's personal attention
- **cse143-staff@cs:** Send mail to instructor, all TAs, and all consultants
 - Best place to ask questions that are not appropriate for the newsgroup
 - But please use the newsgroup for most general discussions

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Office Hours

- Tjaden (Sieg 226c)
 - Mondays (11:50-12:50), Tuesdays (1:00-2:00), or by appointment
 - Any time the door is open – if we can't deal with it then we can set up an appointment
- TA's
 - Times will be announced (not scheduled yet)
 - Feel free to see **any** TA during their office hours – not just the TA for your section
- Consultants
 - Available in lab; exact hours on web

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CRC

- Computing Resource Center
 - Mary Gates Hall - first floor
- CSE 143 consulting staff usually in CRC
 - Goal is to provide quick help when you're stuck and have already tried to fix the problem
 - More extended tutoring only when others are not waiting
 - See guidelines in today's handout
- MSVC++ is also available in most UW computing labs

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C++ Compilers

- Full Support
 - Microsoft Visual C++ on Windows 95/98/Me/NT/2K
 - Version: MSVC++ 6.0 (5.0 may also be OK, but 6.0 recommended)
 - Home platforms with MSVC++ 6.0 (maybe 5.0)
- Partial Support
 - Other *recent* ANSI C++ compilers
 - Metrowerks CodeWarrior, Borland, etc.
 - Other OS's: Linux, Unix, Mac, etc.
 - Watch for non-standard C++ (gcc in particular)

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What Does Support Mean?

- Full support means we will:
 - Provide sample executables when appropriate
 - Provide consultant support in CRC (limited hours)
 - Offer advice on systems problems
- Partial support means we will:
 - Help with problems as we can
 - Can't promise that course staff will understand or be able to fix your system
 - Can't promise executables
 - Could be problem with graphics homeworks

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Quiz Sections

- Purposes
 - *Quizzes!*
 - Might be announced the previous day in lecture...*
 - Discuss, ask questions on material
 - Work problems
 - Clarify homework
 - New material presentation
 - Enrichment
- Attendance is expected

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Quiz Section Swapping

- ALL sections have the same homework and assignments
- If you absolutely can't make your normal quiz section one week, ask TAs involved if you can attend another section
- Use STAR for any other section swaps, for any reason.

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Too Fast? Too Slow?

- Students in CSE143 have diverse backgrounds
- The pace is fast
 - Strong advice: don't get behind
- If you are having difficulties -- take advantage of TA/instructor office hours
 - *Early* and often!
- If the course looks too easy:
 - Relax
 - Study from a harder book
 - Overachieve!

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Class environment

- The goal is to create an environment where all students can successfully learn the material
- Questions/answers in lecture
 - Participate!
- Discussions/activities in quiz sections
 - Participate!
- Newsgroup
 - Intended for discussions of course material
 - Appropriate use policy: do not post abusive or irrelevant messages. Do not post homework code

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