Course Planning, Part 2

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Portions courtesy Fred Brooks, Jim Anderson, Samarjit Chakraborty
Course Planning

• First, context: We can talk about planning w.r.t.
  – the course you teach at UNC (less interesting),
  – or a course you may teach in the “real world” (more interesting). Two possibilities:
    • a teaching college;
    • a research university.
  – What are your expectations regarding teaching load?
  – How long do you think it takes to prep a new class?
Course Planning

• How to determine how much can be covered in a semester?
  – Look at syllabi created by people you trust.
  – Search the web and see what’s covered at other schools.
  – Guess.
    • I can guess pretty accurately based on slide count.
  – Keep records.
    • The first time you teach a class, you may not get it completely right.
Syllabus

• Forces you to think about the practicalities of the course, it’s a contract
• How much time – lectures, homework, studying ...
• Contents – schedule, special rules, evaluation criteria
• More details, the better it is
• Should help students understand what is expected from them

UNC prescribes a lot of content
Course Policies

• Parenting 101: You get the behavior you reward

• So, what behavior do you want?
  – Trying again on an assignment / learning from mistakes
    • Gary Bishop would give half credit on a resubmitted assignment for all missed questions
  – Self-management of minor scheduling conflicts
    • I give 72 late hours with no penalty, raises threshold of issues I handle
  – Students helping other students?
    • Group assignments: (effective) bonus for working alone or not?
Textbook and Reading Materials

• Textbook or not? What is the course?
• Compile chapters from multiple textbooks
• Cost of the textbook
  – Consider older editions or delta in a newer revision
• Assign reading materials judiciously
Course Planning

• How many exams?
  – One midterm is too stressful.
  – Good to have first midterm by drop day.
  – Avoid major religious holidays (and for graduate courses, perhaps major conference deadlines too).
    • Specifically consider holy days of obligation

• Make a plan in advance for missed exams
  – My strategy:
    • I usually ask for all conflicts by 2nd week of the class, possibly move on a big boo boo
    • Ask students to make up exam early (why?)
    • If a student doesn’t come at all, average other exams (why?)
Course Planning

• Other issues:
  – What can you assume about student background?
    • Do you teach to the A students, the B students, the C students,... ?
  – What are your goals?
    • How do your goals affect planning?
  – How does your course fit within the broader course sequence?
    • Why would this be an issue?
    • Advice: Teach the prereq course to your “usual” course
  – Should a project be required?
  – Powerpoint or white board?
  – Record lectures / whiteboard contents or not?
A Basic Planning Model

From: Teaching at Carolina - A Handbook for Instructors

- What is the place of this course in the curriculum?
- What kinds of skills and levels of knowledge can you expect of students?
  - Teaching at UNC is probably different from both MIT and App. State.
- How do you want students to be “different” by the end of the class?
  - “Research has shown that factual content beyond the final exam is ... lost within a few weeks.”
- What themes, fundamental principles, or synthesizing ideas does the course involve?
- What are the major instructional units which the course naturally divides?
- What kinds of learning experiences seems appropriate for students to master the course goals and objectives?
- How will you evaluate student achievement?
Topological Sort

• Different topics invariably related by dependencies on some way.
• Think hard about how to do **topological sort** to create linear ordering.
• Think hard about the rate at which complexity should be exposed.