Repository:
- who uses it?
- how do they use it?
- how to promote it?
- email about it once every couple months?
- want people willing to share experiences
- contacts for younger people in the profession (good support system)

Brian Forrest - Waterloo: Teaching First Year Mathematics: Service Courses
- Math teaching environment changing
  - more young people involved.
  - many PhD students taking teaching more seriously.

Questions
1. What are main service courses? Target Audience?
   At Waterloo, 1900 incoming students each year.
   Very insulated — never had to teach outside Math Faculty.

   In 1991, Math & Education cooperation not very good.
   (to say the least). No chance to gain teaching experience.
   No support for graduate teaching.
   (no constraints or)
   (direction)

   *This question has a very wide answer.

Service Course
- Math in Art - Fine Art Students: U. of Manitoba
  - afraid of math /equations
  - M. credit requirement
  - lowest level to get credit in.
  - 4 sections of 120 & summer at 80
  - M credit dropped ⇒ maybe one section.
Service Course
- Math in Art - Fine Art Students: U. of Manitoba
  - afraid of math / equations
  - M. credit requirement
  - lowest level to get credit in.
  - 4 sections of 120 & 80 in summer at 80
  - M credit dropped ⇒ maybe one section of 40.
- Diff & Int Calc - Science & Engineering: UBC
- Statistics - U. of Alberta
  - everyone on campus needs Stats.
  - and course also popular (Psychology students)
- Engineers - U. of Alberta
  - Calc, linear algebra, some 300-level, statistics.
- Statistics service courses likely to grow.
- Teacher Education Courses.

3. Who teaches these courses? Resources in place? Class sizes?
- Research Faculty pressured to focus on research first, teaching second.
- Many/Most taught by lecturers. Many are contract lecturers / Post Docs / Grads.
  - no prospect to develop courses.
  - Service course teaching looked down upon.
- Sometimes research faculty teaches them (supposed to roll through).
  - Even when this happens, courses organized by lecturers.
- At Queens, some service departments demand research faculty teachers.
  - Class sizes all over the place.

3. Are students prepared to succeed? What should be done?
3. Are students prepared to succeed? What can be/should be done?
   - What does succeed mean?
   - How do you identify/deal with background deficiencies?
   - At Yale, students are put through predesigned program to prepare them for Yale.
     - ≈ 8 weeks.
     - Mentors online
     - Small enough numbers to make this feasible.

4. How do we define success? Student's perspective?
   Can we align these two perspectives?
   - Depends on the particular course
   - Other department's perspectives.

5. Why should we care?

   **The Student's Perspective**
   - The Good: I am here to learn, teach me.
     - More of these students, then we might realize
   - The Bad: I just want a good grade or credit
     - Some calculus courses used to weed out students (pragmatically works).
   - The Ugly: I have no interest, so don't expect much/any effort from me.

   * The Bad are worth the effort.
     - Most students in this category
     - Many pressures put them here.
     - Survival in the moment.
     - Can give them an experience that will move them to The Good group.
At McMaster, Bachelor of Health Sciences
- good Math students, but not Math Major
- take Minor instead (no paper benefit of this)
- like Math and want to learn it for themselves.
* Success = Leave their program to care to Math. :-(
- getting the right students into the level 2 and above.

* Want our courses to inspire students even in service courses.

Science Calc course - Fully online
- 40 students (35 need to pass to stay in program)
- 75-80% able to stay in program
- Kines requirement (for no reason really)
- one student in Kines needed this one calculus class - took it 7 times, 4th time with Barb.
- passed using new requirements.
- had basic understanding of concepts.
- coached her a bit.
- much of it was just math-phobia

* Adjust the way we assess students?
- Assessment as a means to help students succeed.
- Need a mechanism to make students engage with the course.
- Assignments designed with a broad range of success.
- Used online assignments (8-10 per course).
- Instant feedback.
- Can make good multiple choice questions to even test conceptual concepts.
- Make these accessible broadly (using repository)
→ Make these accessible broadly (using repository)
→ Design assignments to meet individual needs.
  (Could have different options for students in different programs)

Sasha & Laura: Repository

- First-year.math.ca
  - When approved, you can communicate with other members of the site. (Cannot edit until request)
- Course Database
  - Course information for the math courses offered across Canada.
  - Pre-reqs, Anti-reqs, textbooks, assignment structure, meeting information, technology,
- Interact with database
  - Individual
  - With a university
  - Use this to edit courses for this university
- Should categories be standardized or customizable.
  - Custom makes it harder to find things.
  - People might not like to force their courses to fit standardized categories.
- Ideas for search aspect
  - Boolean search (life and something else) — not yet.
  - Can search specific categories.
  - Searching "life" also gives courses that say "not for students in life sciences"
- Posting resources would be nice
- In discussion groups, members get notifications when something is posted
  - Resources group created, so people can post & comment on resources.
  - Feedback on Resources group encouraged.
  - Tag resources with keywords?
When something is posted
- Resources group created, so people can post & comment on resources.
- Feedback on resources group encouraged.
- Tag resources with keywords? (maybe 40 words), adding more keywords after the fact would be challenging.

Keniya & Andie: General Discussion on Service Courses.

- Definition of service course
  - Course included in a program but provided by a school other than the one that owns the program. Department

- Good Definition?
  - Some courses are mixed: math students and students from other programs.
  - Complement = "honours math courses" and maybe any course with restricted access.

- Most common service courses? Who makes Learning Objectives? Who should revise these?
  - Common: Calc, Stats,
  - Who designed these courses? Math Dept or student's Dept?
    - Many times it's the Math Dept solely
    - Probably should be input from the other Depts.
    - Sometimes other departments don't realize exactly what their students require.
      - Or precisely what goes into what they require.
    - Compromising on Math can be difficult.
    - More difficult when students are from multiple programs, with different needs.

- Course Development
  - If communication between Depts is how often