

Math/Stat 6x92 Syllabus  
Department of Maths and Stats  
University of New Brunswick  
revised 21 Aug, 2015

**Course Objectives:**

- you will gain basic presentation skills, organize and deliver a lecture
- you will fill in missing background required for your degree
- you will gain basic research skills

**Requirements:**

- Deliver four research talks to the department over the course of your degree.
- Talks will be evaluated by math/stats GAU members and awarded a simple pass/fail.
- The evaluation is weighted equally on your presentation skills and your ability to research the topic.
- You may be asked to repeat talks that do not pass.

**Supervision:**

- Your talk should be supervised by a member of the math/stat GAU, but could be co-supervised by someone outside the GAU or UNB.
- At most two talks should be supervised by your main supervisor.
- The topics for your talks must be approved by your supervisory committee.
- It is advisable to meet with the talk supervisor regularly while researching the talk to make sure you understand the material before the presentation.

**Scheduling:**

- Talks will normally only be scheduled for 3:30 on Thursdays in the Fall and Winter terms.
- Ideally, you should strive to complete four talks in your first two terms of study. However a more reasonable aim is to present one talk in each fall and winter term of the first two years of your degree.
- To help plan for the talks and coordinate with coursework and comprehensives, you should settle on four suitable topics and talk supervisors during your first committee meeting. In practice, the last two topics will be revised at a later committee meeting.
- Once a topic is chosen and approved by the supervisory committee, you should consult with the talk supervisor to choose a reasonable time to completion. The talk should be then scheduled with Jenn or DoGS.
- To schedule a talk,
  1. send an email to Jenn, with a cc to DoGS and your talk supervisor. The email should contain the following details:
    - earliest date for talk,
    - title of talk,
    - name of talk supervisor.
  2. Ideally, the talk supervisor should follow up with an email confirming the details.

- You should consult with the department calendar before contacting Jenn so you know when the available slots are:  
<http://www.unb.ca/fredericton/science/depts/math/calendar.html>.
- Keep in mind that talks may be delayed due to scheduling difficulties. You should keep sufficient notes so that you can shelve the talk, get on with other work, and deliver the talk one month later.

### Guidelines:

- Suitable Topics:
  - a lecture on an advanced undergrad topic
  - a lecture on a technique, algorithm or proof at an advanced undergrad level
  - a key result from a classic paper
  - remember, talks are meant as an opportunity to add breadth rather than depth to your background.
  - topics should be chosen to round out your background and fill in missing basic material required for your degree and your future employment.
- Target Audience:
  - upper level undergraduates in honours math or statistics;
  - assume a basic background in analysis and algebra, but nothing beyond a first course;
  - keep jargon to a minimum.
  - Up to two talks may be delivered as part of a seminar series of one of the departmental research groups. These talks should be targetted to a more specialized audience, as appropriate.
- Time: You should plan for a 40 minute talk, leaving 10 minutes for questions.
- Regulations:
  - At most two seminars can be delivered as part of a departmental research group seminar series. These talks may assume a specialized audience.
  - Your thesis or report supervisor should not supervise more than two of your talks
  - At least three math/stat GAU members must be present to evaluate the talk and provide written feed back to DoGS.
- Expectations:
  - demonstrate understanding of the research topic;
  - demonstrate an ability to organize your notes and deliver a seminar;
  - be able to explain your topic to a non-specialist.
  - You get a single course credit for four seminars. As a rough guide, based on a 16 week course at 12 working hours per week, you should try to keep your research and prep time for each seminar under 48 working hours. In practice, seminar topics are also chosen to fill in gaps in your background. Additional time may be required depending on the size of these gaps.