Overall schedule: As in previous years, the course has three phases:
- A preliminary phase before the first meeting, in which students prepare themselves through reading, doing easy preliminary problems and preparing their own business plan for a situation of their choice (8 hours minimum);
- The presentation of the course itself and
- A final phase in which students write up their business plans using the materials presented in class.

This structure extends the course beyond the week of presentation, so that students can assimilate and digest the material thoughtfully, in a way that is not possible in the space of 5 days. Also, by investing in preparation for the course, the time in class with the teacher is much more valuable.

Learning process: Students will learn by doing. They will prepare their own business plan, procedures focus on the identification of risks, the analysis of their consequences, and the management of these risks by using "real options", that is, options that relate to the actual operation of a business.

Throughout the course, the students will be learning technique and developing their business plans in parallel. The technique motivates improvements in the business plan, and issues in this plan motivate the techniques.

Grading: Each phase of the course will be graded according to these criteria:
- At the end of the preliminary phase, on the first day of class, the students should hand in the preliminary assignments. These will be graded according to whether they have been done (not on their correctness, since the students will not have had a chance to meet the teacher). 20% of total mark
- At the end of the classroom phase, students will be graded on their performance of the daily assignments, their participation in class and their attendance. 50% of total mark
- The final presentation will be graded for 30% of the total mark.
<table>
<thead>
<tr>
<th>Date</th>
<th>Technique</th>
<th>Learning Objective</th>
<th>Business Plan (BP)</th>
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</thead>
</table>
| Preliminary Phase | Chapter 16, Decision Analysis  
Do Problem 16.10 | Spreadsheet BP; Decision Analysis Basics | Prepare your own business plan,  
(see note on assignments)                                                           |
| Monday (8 March) | Lectures: Introduction  
Risk Recognition,  
Risk Assessment  
Decision Analysis  
Solve Problem 16.12 | Recognition of Risk | Discuss your business plans  
For Tuesday: identify and justify  
3 scenarios of uncertainty in  
costs or markets                                                                   |
| Tuesday      | Chap. 15, 17.  
Lectures: Information  
Collection and Value;  
Options Concepts;  
Options Valuation | Options Concepts | Discuss Scenarios  
For Wednesday: calculate: value  
of BP under 3 scenarios; value  
of information about scenarios,  
in terms of NPV of plan                                                        |
| Wednesday    | Lectures: Options Valuation;  
Options Applications | Discuss options  
businesses use in practice | Discuss value of info for plans.  
For Thursday: identify and value  
options to delay, accelerate, or  
abort BP                                                                         |
| Thursday     | Workshop on Inserting  
Options into Business Plans | How to make use of  
options in business plans | Discuss how your options create  
value by avoiding risks, seizing  
opportunities.  For Friday,  
Prepare presentations                                                      |
| Friday       | Presentations & Discussion | Cogent Oral Report | Present Draft Presentations                                                     |
| End March    |                                              | Cogent Written Report | Final Written Report                                                              |

**Details of assignments**

**Preliminary phase:**
- Chapter 16 of Applied Systems Analysis (and other chapters) are available at [http://ardent.mit.edu/real_options/ROcse/MIT_latest/coursemat.html](http://ardent.mit.edu/real_options/ROcse/MIT_latest/coursemat.html)
- Sample business plans in many fields are available on the web, for example at: [www.Bplans.com](http://www.bplans.com) and at [www.businessplans.org](http://www.businessplans.org)
- Your preliminary plan should at a minimum, for a period of 10 years:
  1. Identify and describe business  **Note:** This is 1 short paragraph -- maximum
  2. Define market and forecast sales of your product in terms of price and quantity;  **Note:** This is a short paragraph describing basis for forecast plus a table
  3. Describe development of business in terms of investments in at least two phases;  **Note:** Any business goes through phases. It may be most useful for you to think in terms of a start-up phase and a possible expansion phase.
  4. Define costs of production, distribution, etc. (Your cost model should properly reflect the fixed and variable costs associated with different levels of commitment to the plan. You should probably use the generic cost model available at [http://ardent.mit.edu/real_options/Common_course_materials/spreadsheets.html](http://ardent.mit.edu/real_options/Common_course_materials/spreadsheets.html)  **Note:** the spreadsheet model is the crux of the exercise. No plan complete without a model that translates efforts expended into costs that you can compare with projected revenues. If you do not have this and thus cannot complete steps 5 and 6, you have not done exercise.
  5. Thus calculate net cash flows by year
  6. Calculate Net present value of business and its prospective rate of return

**In class phase:**
- Lectures refer to slide shows available through direct links or independently at [http://ardent.mit.edu/real_options/Common_course_materials/slides.html](http://ardent.mit.edu/real_options/Common_course_materials/slides.html)
- Specific assignments will be set and discussed in class.