There is little debate nowadays regarding the necessity of assessment of research and development (R&D) funds. Research evaluation becomes increasingly important as the competitive stakes for national economies and industries increase, as the sizes of R&D budgets increase, and as demands for transparency, accountability and performance across public and private entities increase.

There are three interconnected facets of evaluation:
- Priority setting and prospective impact appraisal (ex ante evaluation)
- Monitoring of progress of ongoing programs (interim evaluation)
- Evaluation of program outcomes and longer-term impacts (ex post evaluation)

Cumulatively, these facets of evaluation aim at:
- Measuring performance
- Supporting performance-based management and performance-based budgeting
- Enhancing accountability and transparency
- Improving the communication of program activities to decision makers / sponsors

Evaluation, thus, provides a powerful tool with many potential uses. An emerging international economic and technological power, Brasil is raising R&D expenditures to increase competitiveness in the face of intense international competition. Higher expenditures necessarily draw attention to performance and accountability. The appraisal of R&D, however, presents unique difficulties due to the specific features of the activity: uncertainty, externalities (spillovers), long-term gestation.

This course examines the experience with R&D program appraisal and evaluation in developed economies. It is a methods course. The discussion focuses on best practices in evaluation, the advantages as well as disadvantages of evaluation (e.g., bureaucracy, burden on researchers, disincentives to think freely and take risks). All facets of evaluation – ex ante, monitoring, ex post – are covered and the main available analytical methodologies and data sources are explained. Emphasis is placed on the most recent methodological developments such as foresight techniques, real options techniques (ex ante) and social network methodology (ex post).
II. Course Outline

I. OVERVIEW

Session 1: Definitions – Rationale – Context of Evaluation
Session 2: Overview of Evaluation Tools
Session 3: Overview of Data for Evaluation

II. EX ANTE EVALUATION

Session 4 Peer Review, Expert Panels
Session 5 Net Present Value, Internal Rate of Return, Real Options
Session 6 Technology Foresight, Benchmarking

III. PRESENTATIONS

Session 7: Strategic Partnership Case Presentations I
Session 8: Strategic Partnership Case Presentations II

IV. EX POST EVALUATION

Session 9: Statistical Analysis, Econometrics
Session 10: Social Networks, Portfolio Analysis

V. LESSONS LEARNED

Session 10: Lessons Learned – The Way Ahead
III. Readings


This new book summarizes important parts of the literature of both methodology and practice across the various facets of evaluation, concentrating primarily on ex post evaluation. [Selected chapters]


This report deals explicitly with all three facets of evaluation (ex ante, monitoring, ex post). It explicitly links the specific evaluative questions that the policy maker would ask to analytical methodologies and data sources. [Selected chapters]

(3) Case studies of inter-firm collaborative agreements from around the world.

These cases will be allocated among groups of students at the beginning of the course and their appraisal will be the subject of the presentations in Sessions 7-8.

(4) Detailed power point presentation by Professor Vonortas which will bridge different aspects of the course and cover important aspects from the readings and beyond.

IV. Course Evaluation

The final grade for the course will be a weighted average of grades on (i) in-class participation, (ii) the group presentation of cases (sessions 7-8), and (iii) a short position paper (3-5 pages long) to be prepared by class participants individually at home. Each of these will carry equal weight.