EMSD

Syllabus

Planning & Control Systems (10 ECTS)

1. Course Description

The course aims to provide students the fundamental concepts related to the design and implementation of Planning and Control (P&C) systems. A specific focus is given to the implications of designing P&C systems in public sector organizations. The goal of the course is also to allow students to gain a systemic perspective on how to design and implement P&Cs which are capable to support organizations to act across several disciplines or professional specializations, such as: Accounting/Planning/Reporting; Strategy; Organization & Human Resources; Systems Analysis.

Designing responsibility areas, linking them to performance measures, and understanding behavioral implications associated to formal and informal performance management systems are an important issue that is focused in this course. A "learning-oriented" perspective in P&C systems design and implementation is adopted.

2. Learning Outcomes

Knowledge and understanding

Students will learn how to design and implement performance management systems that may help organizations to manage their own growth and restructuring processes in a sustainability perspective. They gain a systemic and design-oriented view of P&C.

Students specifically learn about the factors of complexity particularly influencing and characterizing the planning, policy design and management in the public sector. They will also know how to apply the fundamentals of P&C design to public sector organizations, in order to support their governance and management processes.

They also learn to analyze and diagnose organization's solvency and liquidity, and to draw up plans that reflect the dynamics of the public and private sectors.

Applying knowledge and understanding

The students will engage in real life case-study analyses that will be conducted, in which they will apply their knowledge and understanding acquired from the field of P&C, facilitated through the use of system dynamics mapping. These applications will extend into the courses: “Dynamic Performance Management in the Public Sector” and “System Dynamics for Business Strategy”.

Making judgements

Students should be able to reflect on the method to use while adopting planning and control systems as a viable means to foster empowerment, accountability, communication and learning, particularly in organizations operating in a complex and dynamic environment.

Communication

Students will present and discuss relevant literature as well as the result of their case studies in class.

Learning skills

Students will acquire skills that are required for self-studies of the literature on the subject and to investigate the relationship between Planning & Control and systems performance.

3. Course Content

The course is divided into three parts:

a) Principles and techniques for P&C Systems Design

- Planning & Control as a System;
- Different levels of control;
- Levers of control - Organizational control
- Designing P&C systems vs. Organizational Design
- What is organizational performance and under what perspectives it can be framed
- How to measure performance
- How to design and implement a dynamic performance management system and link it to strategic planning
- How to identify the processes underpinning performance, and map them
- How to tie strategic resource dynamics to processes and performance indicators
- How to link strategic resources, and performance indicators to responsibility and incentive systems.
- Managing Organizational Growth & Dynamic Complexity
- The need of a Dynamic Performance Management Approach to foster Sustainable Organizational Development
- Fostering Organizational Development through Dynamic Performance Management.

b) Contextual and Behavioral Implications of P&C Systems in the Public Sector

- Specific complexity factors in public sector organizations. The applicability of management principles to public sector organizations
- Development levels of strategies in public sector organizations: government and management

- From a bureaucratic to a managerial view of Planning & Control in the public sector (input; process; output; outcome): The New Public Management vs the New Public Service view.
- Designing Planning & Control Systems in the Public sector: from a structured to a learning-oriented approach
- On Responsibility centers, information tools, and the control process in the public sector.
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- Legislation frameworks concerning planning & control in the public sector
- Cultural constraints in implementing Planning and Control Systems in Public Administrations
- Benchmarking Public Services
- Formulating objectives, activities and performance indicators: the strategic and operational plans – Case-study analysis
- Designing P&C in the Public sector: from an organizational (institutional) to an inter-institutional perspective
- Behavioral implications of performance management systems in different industry areas (e.g. police and public safety, health care)

c) Tools for business solvency & profitability analysis: an introduction

- Financial analysis: ratios
- Profitability & Solvency analysis
- Financial analysis: flows
- Assessing solvency, liquidity and profitability in relation to sustainable growth.
- Cost analysis
- Contribution margin analysis
- Budgeting and variance analysis

4. Course Design

The course is comprised of lectures, seminars, group discussions, students' presentations, modeling sessions and individual assignments/papers. An overall attendance rate of 80% in scheduled sessions is required, and attendance is mandatory in the group discussions, students' presentations, and seminars, and active participation is required in those sessions.

5. Student's Evaluation

Assessment is carried out by means of evaluation of individual and group assignments. For a passing grade the student must (a) have pass marks on all the assignments; (b) have participated in the mandatory sessions; (c) have an adequate overall attendance rate. In addition, the grade is based on a project report and its presentation.

An ECTS grade is provided to the student at the end of the course according to the A—F scale. Students not successfully fulfilling all the course requirements within the regular time frame have the option of a re-sit the following semester.

Performance Management in the Public Sector (12 ECTS)

1. Course Description

Analysis of the complexity factors that particularly influence and characterize planning, policy design and management in the public sector.

Three Dynamic Performance Management (DPM) perspectives are analyzed: an instrumental, an objective and a subjective DPM view.

2. Learning Outcomes

Knowledge and understanding

Students will learn how to design and implement performance management systems that may help public sector organizations and communities to pursue sustainability and lifelong endurance … how to develop SD models that can better support the design and implementation of DPM systems to assess and manage performance in different contexts.

Students will also learn how SD modeling and simulation can support collaborative governance, to manage 'wicked' social issues and to pursue sustainable community outcomes.

Students learn to analyze problems at different consequential levels, i.e. departmental, political, interdepartmental, cross-institutional. The need to link the political and managerial level, planning and control, design and implementation, policy formulation and evaluation is emphasized. The benefits of joined-up government are explored, and linked with the need to frame the value chain leading to deliver 'products' to citizens, through the fulfillment of processes and activities. Improving service quality and operational efficiency are analyzed as primary outcomes of more 'learning-oriented' P&C systems, according to a 'New Public Management' perspective in the public domain.

Students also learn how to adapt the System Dynamics method as an approach to foster a 'learning-oriented' view of Planning and Control in the public sector. They learn how to relate system dynamics models coherently and consistently to other Planning and Control models to better support key-actors' learning and decision making in and across various public domains.

Applying knowledge and understanding

Students develop System Dynamics models and Interactive learning Environments (ILEs) to facilitate effective planning, control, policy design, strategy development, and implementation in various public contexts. More specifically, such knowledge will be applied at three levels, i.e.: a *macro*, *meso*, and *micro* level. The first one relates to contexts that may imply the need to model various inter-related sectors of the economy and to support decision making concerning different 'key-actors', often operating across several institutions. Applying System Dynamics modeling on a *meso* level implies the opportunity to analyze problems from the perspective of a sector, i.e. in a view which is usually adopted by different branches of a public administration (e.g. a Ministry). Applications of System Dynamics modeling at these two levels address the political processes. Applications at the third level (i.e. the *micro* one) address the departmental or managerial processes. In fact, it focuses on the analysis of 'administrative products' that are delivered by the fulfillment of processes and activities inside the department of a given Ministry. In developing System Dynamics models addressing all the three levels, students learn to: (1) use System Dynamics as a method that portrays the tight relationships that

exist between the managerial and the political level; (2) use System Dynamics as a method to support the development of Planning and Control systems, - e.g. in defining performance standards, gauging results, analyzing performance drivers, outlining strategic resources, identifying policy levers, - all within the framework of the 'dynamic' balanced scorecard perspective.

The students will engage in real life case-study analyses in which they will practice their public sector and modeling knowledge and understanding on public management disciplines. They will identify the systems structure underlying poor public performance and will develop and assess strategies and policies aimed at performance improvement. Students will also analyze how to assess and manage sustainable development.

Students will demonstrate their ability to transfer their skills across management disciplines and public sectors and will learn to approach a problem from a multi-sector and a multi-disciplinary perspective.

Making judgements

Through System Dynamics based case-study analyses, students learn to assess the sustainability of public policies and strategies from various perspectives. They gain a systemic, time-related, and open-ended perspective on public organizations. They also learn to evaluate performance, based not only on financial and tangible factors, but also on intangibles. Planning and control, and strategy development and implementation are considered elements of an integrated approach aimed at fostering decision makers. Students learn to detect the limits of conventional approaches (theories, techniques and tools) for policy design, strategy development and implementation, and performance evaluation.

They should be able to reflect on the method to use in order to adopt Planning and Control systems as a viable means to foster empowerment, accountability, communication and learning, particularly in public organizations that operate in a complex and dynamic environment. Different levers on which to act in order to affect radical change in public organizations are examined according to various managerial "schools", ranging from the *Reinventing Government* to the *New Public Service* approach.

By experience they recognize the values and the limits of the System Dynamics method, when applied to performance management systems, and are inspired to reflect on how that method can be used for learning purposes.

Communication

Students can present and discuss relevant literature sources as well as the result of their case studies in class. They also present results from modeling and simulation sessions to stakeholders in organizations and to interested academics.

Learning skills

Students are enabled to acquire skills that are required for self-studies of the literature on the subject.

The course is divided into three parts:

1. **Applying Dynamic Performance Management Systems to Public Sector organizations**

- The role of System Dynamics modeling in supporting planning, control, performance evaluation, and decision making, in a strategic learning-oriented approach. System Dynamics modeling and joined-up government

- The support of System Dynamics modeling to frame the relevant system by comprising both public and private sector decision makers
- Different perspectives and application domains for System Dynamics modeling in the public sector: macro, meso and micro views. Applying System Dynamics in a macro perspective: an inter-institutional perspective
- The design of Dynamic Performance Management Systems in the Public Sector
- Framing Performance in the Public Sector: a DPM perspective
- Framing Performance in the Public Sector: a DPM perspective: Framing the System: from static to dynamic and outcome-oriented Balanced Scorecards
- Dynamic Performance Management applied to University management

2. Applying Dynamic Performance Management to collaborative governance, to generate public value for communities

- Bridging policy design and implementation through Dynamic Performance Management to enhance public value. An outcome and collaborative governance approach
- Policy coordination and outcome-based DPM: Applying DPM to balance service quality and public governance principles to achieve quality of life outcomes
- Enhancing the Governance of Local Areas through Dynamic Performance Management

3. Developing Dynamic Performance Management to foster user satisfaction, performance improvement and accountability in the public sector

- Urban planning and sustainable development
- E-government
- Industrial networks
- Modeling the value chain of delivered services in an inter-institutional perspective
- Modeling products, processes, and related performance measures
- Public Works (laboratory) – Case-study
- Energy (laboratory) – Case-study
- Education (laboratory) – Case-study
- Social services (laboratory) – Case-study
- Public Utilities - water provision (laboratory) – Case-study
- Public Utilities garbage collection – Case-study
- Police and Safety – Case-study
- Back-office units - Managing Billing Processes in a Municipal Water Company: A Dynamic Balanced Scorecard Perspective.
- Back-office vs. Front office units service delivery – one-stop-shop service
- Health Care - Case-study
- Labor and unemployment policies – Case-study
- Environmental Protection Agency – Case-study
- Education – University Management – Case-study
- Culture - Dynamic Balanced Scorecards in Theatres (laboratory). Case-study
- Tourism - Case-study

4. Course Design

The course is comprised of lectures, seminars, group discussions, students' presentations, modeling sessions and individual assignments/papers. An overall attendance rate of 80% in scheduled sessions is required, and attendance is mandatory in the group discussions, students' presentations, and seminars, and active participation is required in those sessions.

5. Student's Evaluation

Assessment is carried out by means of evaluation of individual and group assignments. For a passing grade the student must (a) have pass marks on all the assignments; (b) have participated in the mandatory sessions; (c) have an adequate overall attendance rate. In addition, the grade is based on a project report and its presentation.

An ECTS grade is provided to the student at the end of the course according to the A—F scale. Students not successfully fulfilling all the course requirements within the regular time frame have the option of a re-sit the following semester.

Business Strategy (8 ECTS)

1. Course Description

Introduction to the system dynamics for business strategy, with a specific focus on small medium enterprises and on their relationships with the public sector.

2. Learning Outcomes

Knowledge and understanding

Students gain knowledge in the application of system dynamics to business strategy formulation and implementation, with a particular focus on small medium enterprises and on their relationships with the public sector. Skills are developed in mapping processes affecting performance. Students also learn to use the system dynamics method in supporting business decision makers to identify areas for performance improvement, and set proper goals/objectives, as well as performance indicators to foster sustainable strategies.

Applying knowledge and understanding

The students will engage in real life case-study analyses in which they will practice their business knowledge, modelling skills and systems understanding on identifying the systems structure underlying poor business performance and on developing and assessing strategies and policies aimed at performance improvement. Students will demonstrate their ability to transfer their skills across management disciplines, including strategic management accounting and business and scenario planning. And they learn to approach a problem from a multi-sectoral and a multi-disciplinary perspective in the private vs. public sector domain.

Making judgements

Students learn to assess the sustainability of business strategies from various perspectives. They gain a systemic, time-related, and context sensitive view of firms. They also learn to evaluate performance, based not only on financial,

tangible and intangible factors. Management is considered the integration of planning and control, strategy and implementation resulting in organizational *learning*. Students learn to detect the limits of conventional methods, techniques and tools in strategy design and implementation, and performance evaluation. They learn how the role of such tools can be re-shaped according with an emphasis on learning using system dynamics. Real case-study analysis will be conducted during lectures.

Communication

Students can present and discuss relevant literature sources as well as the result of their case studies in class. They also present results from modelling and simulation sessions to stakeholders in organizations and to interested academics.

Learning skills

Students are enabled to acquire skills – also through individual assignments (together with feedback from teachers) – that are required for self-studies of the literature on the subject.

3. Course Contents

The course is divided into three parts:

1. **Strategy principles & Strategic planning/control**
    - The concept of business strategy – The Business Idea. Strategy as learning
    - Strategy as learning: Case-study analysis
    - Strategic Planning & Control. Conventional strategic analysis tools: matrixes, SWOT analysis
    - The strategy process

2. **Using P&C tools for strategic analysis and diagnosis**
    - Financial analysis: ratios
    - Profitability & Solvency analysis
    - Financial analysis: flows
    - Assessing solvency, liquidity and profitability in relation to sustainable growth.
    - Cost analysis
    - Contribution margin analysis
    - Budgeting and variance analysis
    - Framing financial statements through System Dynamics models

3. **Business Growth Sustainability & restructuring strategies**
    - The specific complexity of small-medium enterprises (SMEs)
    - Planning for business growth and restructuring - Modelling SME Growth
    - Diagnosing Business Growth Sustainability
    - Modelling stunted and inflated growth
    - Modelling Intellectual Capital
    - Designing & Implementing ILEs to support management education and entrepreneurship.

4. Course Design

The course is comprised of lectures, seminars, group discussions, students' presentations, modeling sessions and individual assignments/papers. An overall attendance rate of 80% in scheduled sessions is required, and attendance is mandatory in the group discussions, students' presentations, and seminars, and active participation is required in those sessions.

5. Student's Evaluation

Assessment is carried out by means of evaluation of individual and group assignments. For a passing grade the student must (a) have pass marks on all the assignments; (b) have participated in the mandatory sessions; (c) have an adequate overall attendance rate. In addition, the grade is based on a project report and its presentation.

An ECTS grade is provided to the student at the end of the course according to the A—F scale. Students not successfully fulfilling all the course requirements within the regular time frame have the option of a re-sit the following semester.