Dynamic Optimization Refresher

<table>
<thead>
<tr>
<th>Course title - Intitulé du cours</th>
<th>Dynamic Optimization Refresher</th>
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<tbody>
<tr>
<td>Level / Semester - Niveau /semestre</td>
<td>M2 / S1</td>
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<tr>
<td>School - Composante</td>
<td>Ecole d’Economie de Toulouse</td>
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<tr>
<td>Teacher - Enseignant responsable</td>
<td>SILVA ALVAREZ FRANCISCO JOSE</td>
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- Lecture Hours - Volume Horaire CM | 15 |
- TA Hours - Volume horaire TD |
- TP Hours - Volume horaire TP |
- Course Language - Langue du cours | Anglais |
- TA and/or TP Language - Langue des TD et/ou TP | Anglais |

**Teaching staff contacts - Coordonnées de l’équipe pédagogique :**
- email: francisco.silva@unilim.fr
- Preffered means of iteractions: email.

**Course’s Objectives - Objectifs du cours :**

Newly acquired knowledge once the course completed:

- To perform a sensitivity analysis of some parametrized optimization problems (envelope theorem).

- To treat some simple models of time-dependent optimization problems, in finite and in infinite horizons, by using dynamic programming techniques.

- To apply dynamic programming techniques to some classical growth models under certainty.

**Prerequisites - Pré requis :**

- Multivariate calculus.

- Optimality conditions for optimization problems.

These contents are reviewed in the course "Static Optimization refresher".

**Practical information about the sessions - Modalités pratiques de gestion du cours :**

This year the course will be online. An active participation of the students is expected. More precisely, several exercises will be proposed and some of them will be solved during the lectures.

**Grading system - Modalités d’évaluation :**

- No grading scheme applies to this course.
Bibliography/references - Bibliographie/références:


Distance learning – Enseignement à distance:

- Interactive virtual classrooms.
- Remote (online) tutorials (classes).
- Chatrooms/Forum.