Syllabus

Subject: Decision making models
Courses: ______

Titulado Superior en Dirección de Marketing
y Gestión Comercial

Academic year 2012 / 2013

<table>
<thead>
<tr>
<th>Teachers:</th>
<th>Abelardo Royo</th>
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<tbody>
<tr>
<td>Period of classes and year:</td>
<td>2\textsuperscript{nd} Semester \ 4\textsuperscript{th} Year</td>
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<tr>
<td>Type of course:</td>
<td>OB Obligatory</td>
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<td>Language in which the course will be taught:</td>
<td>English</td>
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<tr>
<td>No. Of credits:</td>
<td>3</td>
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<td>Hours per week:</td>
<td>2</td>
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Business Management Department
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1. Teachers´ Contact details.
abelardo.royo@esic.edu

2. Description of the subject.

Among the directive skills that a manager must have independently of the management area is decision making. It is mandatory obtaining skills of decision making as a practice managing tool.

3. Subject Aims.

1. Understand decisions as transversal skills in the managing process, in the general management and the functional directives.
2. Know and apply the decision making process to complex corporate situations.
3. Know and apply specific support methods and assistance to efficient decision making.
4. Identify the situations when it is convenient making decisions using a kind or other of tool depending on the problem and the situation.


**Transversal skills.**
- Solving problems capacity.
- Skill for applying theoretical knowledge to Business practice.
- Capacity for organizing and planning.
- Self learning

**Specific skills.**
- The student will understand the importance of decision making in the economic and Business context.
- The student will have the Skill of understanding and analysing the different methodologies for problem solving.
- The student will know how to identify and quantify the uncertainty in decision problems.
- The student will know the importance of information and will be able to assess it in every decision scope.

Decision making models.
The student will be able to choose the appropriate methodology to apply in every particular problem.

5. Methodology

The subject must develop the students’ skills that allow them to obtain a global vision of the decision making in the business context.

The explanation of the different concepts, with the students’ active participation and with the support of descriptive schemes and practice examples should require the 65/70% of the time approximately.

The resolution of practical cases and coursework by the students, will be combined with the reading and commentary in class of actual texts (books, articles, conferences…), occupying the 30/35% of the remaining time.

Classes must be participative, combining the conceptual explanation with real examples that allow a better comprehension of the different issues.

6. Resource Materia

The documentation is based in slides, and notes if appropriate, of the different topics that form the Program.

As additional material we will have real business examples that operate in global environment, solved practice cases and other unsolved for the students, and the specific documentation previously selected, in addition of the basic and complementary bibliography that is recommended.

Also, classes will be taught with audiovisual material and software as support of some of the studied methods.
7. Practical Coursework

Practice cases will be used in order to apply the different concepts that will be taught in class.
Additionally, practice activities will be proposed for the students of business situations related to them.
Students will use specific software as support for some of the decision making methods object of the course.
During the semester, together with the practice cases treated in class, the realization of a Work with mandatory character will be proposed.
This mandatory Work will be developed during the semester forming workgroups of 5 students. The oral defence of them can be proposed for its evaluation. In this case, the individual qualification will depend on the particular oral defence.

8. Evaluation Process

For overcoming the subject, the students must consider the following issues:
a. Attendance

The class attendance is necessary for the subject comprehension, so it is absolutely mandatory.

In this sense, general rules for bonus and penalty that the School has determined for the present academic year will be followed.

b. In Class Tests

During the course, at least one written test will be realized corresponding with the official Exam Notice of the month of June. Previously to the realization of this test, we will communicate the duration and form of it. As part of the continuous evaluation process, periodic evaluations could be made with a system that allows liberating part of the subject, if each and every one of them are passed and the rest of established requirements are fulfilled.

c. Mandatory Coursework

In addition to the written tests, we will also assess in the final Subject Mark, the Mandatory Work, as the attitude and active class participation, getting, this way, a global qualification during all the semester.

d. Other Coursework

Under proposal of teacher or student, the realization of voluntary works about current issues related to the subject will be considered.

e. Final Exam

The final qualification of the Subject will be formed as aggregation of the written tests marks, mandatory works and the rest of described before, as well as bonus and penalties consequence in the established in the Academic Guide (apart 4.6.2) due to mandatory attendance.

The final mark is not only product of the arithmetic average of all those marks (70% written tests, 20% practice work, 10% rest of interventions) and of the
aggregation of the attendance, because the teacher will assess beside other qualitative circumstances.

To liberate the content of the final Exam, the student must:

- Fulfill the requirements of the School concerning class attendance.
- Have realized and passed the corresponding continuous evaluation.
- Have an active participation in class in quantity and quality and have maintained a good behaviour in class that help the group to achieve the academic proposed objectives.

Anyway, it must be taken into account that for overcoming the subject it is indispensable have realized and passed the Mandatory Work and have obtained a minimum mark of a 5 of 10 in the written tests.

The students that have passed a part of the subject in the continuous evaluation have the right to make the Final Exam without renouncing to his mark in the continuous evaluation.

9. Subject Program

The Program presented below will be susceptible of changes depending on the progress of the subject and the normal development of the classes, all with the goal of obtaining the maximum learning and utility of the described topics.

a. Course Detail

1. General concepts of the decision making as directive skill.
2. Stages for efficient decision making.
3. Individual and group decision making.
4. Rational method or optimization in the decision making. Quantitative methods.
5. Game Theory. Application to specific management situations.
6. Programming management and implementation of decisions.
b. Course Development

1. General concepts of the decision making as directive skill.
   1.1. Directive skills and decision making: leadership, motivation and communication.
   1.2. Definitions related to decision making as directive skill.
   1.3. Relation between decisions making according to business knowledge areas.
   1.4. The paradigms and decision making.
   1.5. Risk and information in decision making.

2. Stages for efficient decision making.
   2.1. Approaches in definition of the stages of the decision making process.
   2.2. Definition of problem and analysis of situation.
   2.3. Generation of choices.
   2.4. Selection of choices.
   2.5. Planning and start up of action.

3. Individual and group decision making.
   3.1. Kinds of problems to solve in group or individually.
   3.2. Decision making methods applied to group work. Solving problems process.
   3.3. Stages of the PSP.
   3.4. Expansion / Divergence tools.
   3.5. Contraction / Convergence tools.

4. Rational method or optimization in the decision making. Quantitative methods.
   4.1. Rational method or optimization in business decision making.
   4.2. Rational Models construction.
   4.3. Linear Programming.
   4.5. Probabilistic models.

5. Game Theory. Application to specific management situations.
   5.1. Coordination game
   5.2. Entry Game.
   5.3. Auctions

Decision making models.
5.3.1. The prisoner’s dilemma: in one stage and repeated.

5.3.2. The prisoner’s dilemma: in one stage.

5.3.3. The prisoner’s dilemma: repeated for multiple players.

5.4. Evolutionary Game Theory

6. Programming management and implementation of decisions.

6.1. The importance of an implementation of the decisions.

6.2. Implementation planning tools.

6.3. The Strengths balance and the creation of a favourable situation for decision making.

6.4. The implementation of the decision process in 3 phases.

6.5. Actions to launch Programming.
10. Recommended Reading

   a. Mandatory Reading

   - Hillier, F. S. y Liberman, G. J. "INTRODUCTION TO OPERATIONS RESEARCH"
   - Drucker, Peter and others: “Harvard Business Review on decision making"
   - Robbins, Stephen: “Organizational behaviour”.

   b. Further Reading

   - Stoner, James; Freeman, Edward y Gilbert, Daniel: “Management”
   - March, James G: “A primer on decision making”. Free Press

   c. Online Support Material

   » ERIETE: www.eriete.es