
UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN



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Thomas Mitchell
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Dear Mr. Thomas Mitchell:

We, at the Graduate Program in Systems Engineering, believe that it is necessary to build the culture of collaboration between academia and the industry in our region.

It is with this idea in mind that we invite you to jointly explore opportunities of mutual benefit within your company. Specifically, we invite you to collaborate with us in the Systems Engineering Practicum Course, which is graduate level course designed for second year MS students to interact with a local company. In this course, one or two students will be assigned to a particular Systems Engineering project defined by the hosting company for 17 weeks and commit to a series of deliverables previously agreed by the parties. This course is offered every year from the last week of January through the first week of June.

The cost for the company to participate in this program starts at transportation and meals for the assigned students for at most twice a week during the project. Additional economic incentives are not mandatory to be eligible to participate and are entirely up to the company.

In short, we propose collaborative short term Systems Engineering projects at low cost carried out by MS students supervised by one of our faculty as well as a contact person in the hosting company. Benefits for the students include consolidating their graduate formation through a real world experience while for the company includes having the availability of the skills of highly qualified human resources, as well as the possibility to evaluate a potential hire.

Attached you will find a more detailed description of the Systems Engineering Practicum course, as well as a list of some of the areas that relate to the expertise developed in our Graduate Program.

Please do not hesitate to contact should you require additional information regarding our Program in general and/or this invitation to collaborate in particular.

Kindest Regards,

Mauricio Cabrera Ríos, PhD
Research Coordinator
Graduate Program in Systems Engineering

Graduate Program in Systems Engineering
<http://yalma.fime.uanl.mx/~pisis/>

Description of of the Systems Engineering Practicum Course

- Semester: January-June, 2007 (Last week of January – First week of June)
- Elegibility: 2nd year MS students
- Objective: Provide the student with the experience of understanding, formulating and solving a Systems Engineering problem in a formal professional setting within the areas of Production or Management. Simultaneously, to provide the hosting company with the analysis and/or solution to a particular opportunity area.
- Lectures: The class will meet every Monday from 8:30 a.m. to 10:00 a.m. to discuss the progress of the projects.
- Grading: In a scale from 0 to 100 and as an average between the grades assigned by the lecturer and the person in charge at the company.
- Working Method: The students registered for this course will be assigned at the beginning of the semester to different projects from the hosting companies. The instructor will decide the number of students assigned to each project, with a maximum of three students per project. Every project will be supervised by one of the faculty of the Graduate Program and a person designated by the hosting company. At least two formal meetings with the company are required: the first one must be scheduled half the way through the semester (before Spring break) to evaluate the progress of the project; and the second one at the end of the semester to discuss the conclusions of the project.
- The instructor: This is the person responsible for the course and will be the formal contact for the Graduate Program. The instructor will meet with the students every week to keep track of their progress.
- The advisor: This is the person with the required technical expertise to guide the project.
- The contact at the company: This person will describe the opportunity area that motivates the project and will provide the required information to the assigned students. The contact will also give timely feedback to the students on the progress of the project.

The student: The student will be responsible for planning, managing, and carry out all execution phases of the project; request specific information to the contact at the company; report the project's progress in a weekly basis; as well as consult with the project advisor on technical issues and the direction of the project.

List of some of the areas that relate to the expertise developed at the Graduate Program in Systems Engineering:

- Optimization of Manufacturing Processes
- Optimization of Manufacturing Systems
- Optimization of Management Systems
- Design and Analysis of Experiments
- Industrial Statistics
- Decision-Making with Quantitative Basis
- Demand Analysis and Forecasting
- Supply Chain Management
- Decision Support Systems
- Simulation of Manufacturing Systems
- Inventory Analysis and Control
- Production Control