1 COURSE OBJECTIVES

Senior Design is intended to:

1. Provide a problem analysis and system design experience similar to ISyE professional practice.

2. Provide an opportunity to practice and perfect the skills of technical report writing and oral presentation.

The skills you should sharpen in this course include:

**Systems analysis and design:** including the ability to

- define a problem properly,
- identify and analyze relevant factors,
- develop a model of the problem,
- generate and evaluate alternative approaches for accomplishing the desired objective, and
- design the needed system.

**Technical Writing:** You have chosen a field that demands effective written communication. Your skill in documenting the results of your work will determine to a large extent the value of that work.

**Public Speaking:** It is not enough to do good work, you must also convince others, who may be apathetic or even antagonistic, that the work is good. Your skill in clear, concise, and convincing presentation may make the difference between a successful project and fruitless effort.

2 SECOND SEMESTER – ISyE 4105

In the first semester the emphasis of the project has been on defining and analyzing the problem. In the second semester the emphasis is on designing and implementing solution approaches for the problem. In most cases, a problem can be addressed in several ways. Therefore, it is good practice to design and evaluate one or more alternative solution approaches to the problem. As a result, the group and the client can be (more) confident that the selected solution approach is indeed an appropriate one.

The progress report should describe briefly the characteristics of the alternative solution approaches investigated, the results of the evaluation of the alternative solution approaches, and the choice of solution approach to be implemented with the accompanying motivation.
3 GRADING

Your faculty advisor will grade your team on the following elements:

a. The value your project has added to the client organization and the professional level of your results. (50%)

b. The quality of written reports. (25%)

c. The quality of your presentations. (15%)

d. Your overall professional conduct including class participation. (10%)

Note that 40% of your grade is based on the quality of your reports and presentations. We anticipate you will invest nearly one third of your time preparing reports and presentations.

To ensure reasonable consistency in grading among the three advisors, each advisor will grade the groups of the other advisors based on the Executive Summary of the reports and the associated powerpoint presentations. These grades/impressions will help a group’s advisor when making a final decision on the group’s grade.

Your individual grade in the course will be determined by the team grade and an evaluation of your contribution by the members of your group. Each group member will receive a number of points equal to six times the number of members in the group. Each group member distributes his or her allotted points over all group members (including him- or herself) based on effort and contribution (maximum allowed number of points assigned to a single group member is 10). The number of points received by a group member will be used, if necessary, to adjust the group grade upward or downward.