STOR493 - Internship in Statistics and Operations Research (3 credits)

Course Components (required):

- 1. Internship (completed during the summer).
- 2. Journal (completed during the summer).
- 3. STOR493 (register for this course in the Fall Semester following the internship; any questions regarding course registration should be sent to STOR Department Staff at stor@unc.edu).
- 4. Group Meeting (September): individual oral presentations & peer evaluations. (You must contact STOR Department Staff at stor@unc.edu immediately regarding the scheduling of this meeting.)
- 5. Final Report (due immediately after Fall Break).
- 6. Course Evaluations (end of semester).

Specific Instructions:

Journal:

Keep a journal throughout your summer internship, as this will make it much easier to prepare your oral presentation and write an acceptable report in the Fall. Make detailed entries in the journal regularly at frequent intervals, perhaps daily, but at least weekly. The journal content will form the basis of your oral presentation and your final report.

Final Report:

The report should be written in a narrative format, and it should be organized into clearly delineated sections (with a title/heading on each section). The length should be approximately 10 pages (12-point Times New Roman font, double-spaced, standard margins), submitted electronically to stor@unc.edu as a pdf file.

The following elements must be included in the report, with each item addressed comprehensively and explained in sufficient detail:

What is the overall mission of the institution/organization where you worked? In order to fulfill their mission, what activities do they engage in? (For example, designing/manufacturing products, or providing services.)

What is the role of the group in which you worked? How does your group fit into and interact with the broader organizational structure?

What is the job of your mentor/supervisor? How does their job fit into the group?

Broadly, what are your responsibilities as an intern? With whom do you interact, and in what context?

Describe the "organizational culture" where you worked (e.g., collegiality, intensity, formality, competitiveness).

Describe any general training or orientation that you received.

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For each project that you are involved with, provide a complete description of:

The overall objective of the project.

Your tasks/responsibilities within the project, and how they fit into the project as a whole.

Skills and knowledge that you used in completing your tasks (describe the specific topics in mathematics, statistics, probability, operations research, actuarial science, and the specific programming languages and software).

New skills and knowledge that you learned during the internship in order to complete your tasks.

Any challenges that you faced in completing your tasks, and how you dealt with those challenges.

The output/results/conclusions that you produced, and their impact on the project as a whole.

What is your overall assessment of the internship experience? Did it meet, exceed, or fall short of your expectations?

Did the internship fit your academic background? Were you well-prepared for your responsibilities?

What effect will the internship experience have on your future academic plans? (courses, major, minor, etc.)

Did the internship fit your career goals? What effect will the internship experience have on your career goals?

What are the employment prospects (generally) in the field of your internship?

Were you given appropriate supervision and feedback during the internship? (too much? too little?)

Would you recommend this internship to other students as a valuable experience?

Group Meeting:

<u>Individual Oral Presentations</u>: Each student will give a 10-minute oral presentation to the group. The presentation will be just speaking (no PowerPoint), but you can distribute handouts, and you can refer to your own notes while speaking. This presentation is expected to be of professional quality, reflecting your experience as an intern in a professional environment. Prepare by thoroughly practicing your presentation in advance.

Your oral presentation must include the following components:

- 1. Introduce yourself (including your academic major, minor; your class year; your plans/goals after graduation).
- 2. Describe your internship position (the organization that employed you; the type of organization; the location; your job as an intern).
- 3. Describe the 3 most positive aspects of your internship experience (with specific justifications/explanations of your choices).
- 4. Describe the 3 least appealing aspects of your internship experience (with specific justifications/explanations of your choices).

Also be prepared to answer questions from the Instructor and from the other students. This group meeting provides an excellent opportunity for students to share, probe, and discuss their internship experiences together.

<u>Peer Evaluations</u>: Each student will submit a peer evaluation of every other student's presentation. Bring your laptop computer; the peer evaluations will be submitted on-line during the group meeting. You should familiarize yourself, in advance, with the assessment criteria in the 10-question Peer Evaluation Template (link will be provided at a later date).

The presentations will be recorded on video.