

## **The Team Formation Process**

The following process will be followed to form project teams in the senior project capstone class:

1. Instructor creates project proposals database in collaboration with sponsors.
2. Interested students apply for project managers positions . PM's should have good grades in pre-requisite classes , a competitive GPA, interdisciplinary background, leadership skills, team spirit and ability to create synergy and cohesiveness among team members. Project management experience and/or background is definitely a plus.
3. Instructor select the best applicants who meet the criteria . Selected project managers announce job opportunities on webct Every project will create 5-6 job opportunities. Every job will have a job description and required qualifications.
4. Students apply for available positions directly to selected project manager via webct email (and CC instructor).
5. Teams declare project approved selection , project titles, project abstracts and team structure formally through BOTH our online form and the first team presentation.

## Team Composition

Teams should reflect multidisciplinary skills in their composition to handle task diversity in an appropriate manner. These skills should match job responsibilities and tasks to be carried out. These skills vary widely depending on the nature, the scope and the size of the project. However, the most typical specialties in each team should encompass the following categories (or equivalent to them) :

Position Code	Position		Job Description/responsibilities	Qualifications
01	Project manager		In addition to managing the team, project managers will be responsible for project management deliverables including feasibility study. He should use project management tool (Microsoft Project Manager) to plan project tasks, allocate and manage resources, assign team members to complete tasks, compile team members' weekly time sheets, report task completion and actual hours worked on tasks, prepare periodic reports on project progress. Receives extra credit when successful.	In addition to the criteria stated in the previous section, background in software economics, process life cycle models and project management techniques is essential.
02	System Analyst		System analysts will be responsible for requirements gathering and documentation (Problem definition, requirements report, DFD's, process specifications, data dictionary , etc) and coordinating with other team members.	Experience/ background in requirements analysis, requirements elicitation techniques, and project documentation.
03	Back-end designer	0301 Data Base Designer	Responsible for designing the backend of the system including data structures, entity relation ship models normalization, SQL, normalization, system structure and other architectural models (repository , client-server, abstract machine model , object-oriented design in UML ,etc.)	Experience/ background in DBMS, CASE tools and modeling techniques in software engineering.
		0302 Network Designer		
04	Front-end designer		Responsible for designing the user interface for users (including GUI components , forms , reports , navigation , etc.	Experience/ background in HCI , cognitive psychology , user interface design, user manuals
05	Programmer		Implementing the system at the unit level and system level. Testing and Maintaining the system Writing user manual .	Experience in web programming and other programming such as C++ , Visual Basic , Java, and the like)

### **Team Rules:**

Group work required for the team project. Generally speaking , group work will be graded as one, and each team member will receive the given grade. Free riders do not get group grades . Instead , they only receive what represents their percentage of contribution

- q All team members may participate in the work of the project .
- q While project managers are the lead contacts with sponsors , all team members should interact with sponsors as needed .
- q **Free riding will NOT be tolerated in this senior project class. Do not be a free rider. Teams may divorce free riders through due process (documentation and a warning). If your team divorces you, you will receive a grade of "F".**
- q Do not enable free riders. Require every person on your team to work. Do NOT do ALL the project work when others fail to deliver. Peer pressure is a VERY STRONG motivator.
- q Don't wait for someone to assign you a task -- volunteer to do whatever you can do on the project.
- q The successful completion of the project depends on the work of every member throughout the entire project.

**MEMBER FIRINGG POLICY** – “As a group, you have the right to fire any member that is not contributing to your project. The policy helps enforce group work and gives you an alternative to a problem member. If you fire a team member, you must write me a memorandum ASAP. Please don't write it very late in the course. At this point, the team member must join another group (if allowed) or develop their own project. If the group member fails to join another group or develop their own project, **THE MEMBER WILL GET NO POINTS IN THE PROJECT. NO EXCEPTIONS!!**

**Within the first month (of the semester):** The team can fire the team member and the member will be asked to join another group or to do an entire project on his own.

**Within the second month (of the semester):** If free riding exists or continues, free riders are highly recommended to drop a course they are not able or they don't wish to put sufficient efforts in.

**After the second month (of the semester):** Free riders will continue with the team but the team " project manager" will decide what percentage of their duties and responsibilities was actually accomplished in comparison with other team members. Accordingly, course instructor will give the member who has lack of participation a grade that reflects this percentage. For example, if the member's work versus team members' work was 10% and the group achieved 90% in the final evaluation, this team member actual grade will be 9% (this is  $10\% \times 90\%$ ).