# Module 2.3 Entrance Conference Project Management

## Booklet 10.26/27/29

**Name:**

**Team Number:**

**Due as compiled documents in Drop Box in word format under specific headings:**

a. Rotation Schedule
   I. Enter your team's Rotation Schedule onto the following Google doc. Rotation Schedule URL is: https://drive.google.com/open?id=1yFZV8rWXOc6OpA-axqR0tt7Xy6dZ9T78u9iD19k8MKo
   II. The Rotation Schedule is due on line on Saturday, February 10.
   III. The Recorder uploads the Rotation Schedule.

b. Ground Rules

c. Mission Statement

d. Strengths and Weaknesses

e. Expectations of Team for TA, Faculty Advisor, team members, project management coordinator, and industrial consultant (if you have one)

# The Team Formation Model

The following elements are essential for effective Project Management:

1. Exchange schedules, phone numbers, e-mail addresses and record on a team calendar.

2. Choose roles that can be rotated or remain static, i.e. Project Leader, Recorder, Project Planner, Time Keeper, and/or Oral Presenter and know your responsibilities.
    a. Roles in this course are Project Leader, Recorder, and Oral Presenter

3. Exchange of interpersonal and technical information regarding strengths and weaknesses in the team and task process, including discussing and recording each individual team members' strengths and weaknesses in the areas that will be utilized to complete the project.

4. Discussion by all involved in the project regarding their expectations of each other. In this course the following expectation will be recorded:
    a. Expectations personal for each team member
    b. Team expectations of Faculty Advisor, Teaching Assistant, Project Management Coordinator, and Industrial Consultant if you have one
    c. Faculty Advisor's expectations of team
    d. Teaching Assistant's expectations of team
    e. Industrial Consultant's expectations of team
    f. Project Management coordinator's expectations

5. Create a Mission Statement to produce a scope statement for a time management plan and for your Proposal. (Module 5)

6. Creation of Ground Rules Systems to be used to perform designated tasks. (Module 4)

7. Development of a Team System for reporting the team's activities to other interested parties, i.e. faculty, other team members, project management coordinator, and teaching assistants. (Module 7)

8. Weekly Planned Team Meetings, including agendas and recording of the team's activities. In this course meetings are formal and have agendas for both weekly Team and Faculty Meetings. (Module 7.1)

a. The focus for team meetings is on preparation, planning, and reporting activities. The meetings should have a planned agenda and minutes (optional) to record the team's activities.
b. The focus on faculty meetings is discussion of recent activities and data and suggestions for future activities.
c. Team meetings with Project Management coordinator are to help maintain the team, discuss issues impacting on the team, team formation and completion.

9. Discussion of the Team Life Cycles and what tasks are associated with each cycle to maintain the team's effectiveness. (Module 8)

a. In this course this activity is a reporting activity and is reported in the Weekly Progress Report in Section #4: How is the Team doing? (

10. Creating a Project Management Plan to manage time and develop Activity Lists that can be expanded into flexible weekly and daily activity lists for the team.

a. In this course Weekly Activity Lists (Module 7.3) are created by the Project Leader and are attached to the Agendas (Module 7.2) for the Weekly Team Meeting for discussion and are then edited and reported to the faculty in the Weekly Progress Reports (Module 7.4).

## 1. Exchange of schedules, phone numbers, e-mail addresses which are recorded on a team calendar.

Schedules and planning are essential components of planning a project. Write down all of the classes and extra curricular activities that you will be participating in this term. Upload schedule in calendar form to the Dropbox or use a web-based calendar and submit the URL to bburrell@mit.edu

Schedule:

Name: _____Team#_____

Monday: _____

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Tuesday: _____

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Sunday: _____

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## 2. Team Rotation Role Planner

In this course you must rotate roles on the evening of the Oral Presentation, Once the team has decided on their Rotation Schedule at the lecture on February 8. The Recorder will go to the Collaboration Toolbox website to the 10.26/27/29 Rotation Schedule which can be accessed through the Announcement Section on the Project Management website http://ctbox.mit.edu/ and type in the Rotation Schedule information. For each Role for each Rotation please include the person's name, e-mail, and telephone number. Please complete by February 10. Do not touch any other team's work on this website because you could delete another team's information. **(If you are a team of four we have introduced below the best role to duplicate for each rotation.)**
**FOLLOW THE FORMAT EXPLICITLY**

**Name of Team Members:**

**Team #**

**Rotation #1**

Role Project Leader Team Member's Name _____

Role Recorder Team Member's Name _____

Role Recorder (if Team of 4)Team Member's Name _____

Role Oral Presenter Team Member's Name _____

**Rotation #2**

Role Project Leader Team Member's Name _____

Role Project Leader (if Team of 4)Team Member's Name_____

Role Recorder Team Member's Name _____

Role Oral Presenter Team Member's Name _____

**Rotation #3**

Role Project Leader Team Member's Name _____

Role Recorder Team Member's Name _____

Role Oral Presenter Team Member's Name _____

Role Oral Presenter(if Team of 4)Team Member's Name _____

**WHEN UPLOADING ON THE ROTATION SCHEDULE WEBSIT USE THE FOLLOWING FORMAT:**

**Rotation Schedule**

**Rotation One**

**Project Leader:**

**Recorder:**

**Oral Presentation:**

**Rotation Two**

**Project Leader:**

**Recorder:**

**Oral Presentation:**

**Rotation Three**

**Project Leader:**

**Recorder:**

**Oral Presentation:**

## 3A. Exchange of interpersonal and technical information integrating strengths and weaknesses into the team and task process, including a discussion and recording of each individual team members' strengths and weaknesses in the areas that will be utilized in the team and task process. This discussion is held in the first Team Meeting

Team formation begins with an understanding about how individual people work alone and together. Individual team members have to know themselves well enough to articulate how they will behave performing a task with others. Because individuals do not always work in the same way, learn in the same way, or have the same values communicating what these difference are and how to integrate them into the work environment is an integral building block when forming a team. The first step is to understand your individual communication, working, and conflict management styles. The second step is for all team members to explain their styles to each other, their personal agendas, and their strengths and weaknesses in relationship to the tasks

they have to perform while working on the team. Becoming a successful member of a team is learning how to collaborate with others. Collaboration is learning to identify team members' strengths and weaknesses, understanding individual's personal expectations and the expectations of other team members, then forming a system that supports using the strengths, developing the weaknesses where appropriate, and deciding which personal expectations can be fulfilled while working together successfully.

**List your strengths in the following areas: (Only list items that are relevant to the project you are assigned.)**

**Name:** **Team #**

Technical Strengths:

Technical Weaknesses:

What do you want to develop in this area during the term?

Interpersonal Strengths:

Interpersonal Weaknesses:

What do you want to develop in this area during the term?

Writing and Editing Strengths:

Writing and Editing Weaknesses:

What do you want to develop in this area during the term?

Presentation Strengths:

Presentation Weaknesses:

What do you want to develop in this area during the term?

**FORMAT THE DOCUMENT AS BELOW. YOUR RECORDER UPLOADS THE COMPLETED DOCUMENT INTO DROP BOX AS IN THIS EXAMPLE:**

**Strengths and Weaknesses**
**Team Member's Name:**
**List Strengths**
**List next Strength Etc.**
**Then Weaknesses done in same format**
**Then Next Team Member's Name;**
**Then their strengths and weaknesses**

## Example Strengths and Weaknesses

**Name: X** **Team # 40**

***Technical Strengths:*** **core chemical engineering knowledge, including mass and energy balances, chemical reaction kinetics and thermodynamics, basic fluid mechanics, basic heat and mass transfer processes, liquid-vapor equilibrium.**
***Technical Weaknesses:*** **mechanical engineering knowledge on reactor and processes design.**
***What do you want to develop in this area during the term*****? I want to apply directly the known chemical engineering concepts and knowledge in an integrated manner to the problem-solving process, at the same time gain further knowledge in reactor and processes design and control.**
***Interpersonal Strengths:*** **I can engage and facilitate discussions; have active-listening skills.**
***Interpersonal Weaknesses:*** **I did not have much experience with teamwork and team-communication, and sometime still have bias when listening and exchanging ideas.**
***What do you want to develop in this area during the term?*** **I want to develop effective communication skills for teamwork.**
***Writing and Editing Strengths:*** **I am familiar with scientific style and format; have written 15+ reports for previous lab classes.**
***Writing and Editing Weaknesses:*** **I do not have previous experience with project-based reports; need proofread and editing for writing.**
***What do you want to develop in this area during the term?*** **Further improve scientific writing skills; develop project-based writing skills (agenda, minutes, weekly reports, entrance and exit reports, etc.)**
***Presentation Strengths*****: I did 10 to 15-minute presentations for previous lab classes, familiar with basic structures and styles for a research presentation.**
***Presentation Weaknesses*****: I loss calm and confident easily when under pressure**
***What do you want to develop in this area during the term?*** **Further enhance presentations skills: structures, timing, body language, pronunciation, voice)**

## 3B. Team Members Expectations

**List Five or more Expectations You Have for Yourself while Participating on the 10.26/27/29**

1.

2.

3.

4.

5.

**List Five or more Expectations You Have for Your Team Members while Participating on the 10.26/27/29 Team**

1.

2.

3.

4.

5.

**List Five or more Expectations You Have for Your Teaching Assistant while Participating on the 10.26/27/29. Discuss with your team members and submit the Team's expectations with your other material before the Entrance Conference:**

1.

2.

3.

4.

5.

**List Five or more Expectations You Have for Your Faculty Advisor while Participating on the 10.26/27/29. Discuss with your team members and submit the Team's expectations with your other material before the Entrance Conference:**

**1.**

**2.**

**3.**

**4.**

**5.**

**List Five or more Expectations You Have for Your Project Management Coordinator while Participating on the 10.26/27/29. Discuss with your team members and submit the Team's expectations with your other material before the Entrance Conference:**

**1.**

**2.**

**3.**

**4.**

**5.**

**The project leader should e-mail your faculty advisor, teaching assistant, project management coordinator, and industrial and/or internal consultant if you have one and ask them to submit 5 expectations each that they have for your team during the execution of your project.**

## Example – Expectations

**Team # 40 Team Members Expectations**
**Team Member's Name: X**

1. **Follow a schedule and plan of action**
2. **Complete written materials and project tasks ahead of schedule**
3. **Don't be afraid of asking for clarification from faculty**

4. **Work well with team members and divide workload appropriately**
5. **Don't commit myself to more than can be accomplished**

**Expectations You Have for Your Team Members while Participating on the 10.26/27/29 Team**

1. **Develop and follow a project plan**
2. **Meet intermediate deadlines for project tasks**
3. **Communicate any concerns, scheduling conflicts, etc in advance**
4. **Provide constructive feedback to each other**
5. **Be open to suggestions and feedback**

**Team Member's Name: X Team Members Expectations**

1. **Do work on time and take responsibility quickly and usefully for things I did wrong or not at all.**
2. **Don't avoid problems.**
3. **Control my emotions when stressed and act rationally and courteously.**
5. **Don't over commit myself**
6. **Put in the work necessary to complete the project in a reasonable manner.**

## 5. Creating a Mission Statement

**How to Brainstorm**

Methods of brainstorming are changing. Text messaging and blogging are forms of brainstorming ideas. Both are collaborative and many good ideas that come from these two sources can help a team to formulate their goals.

1. Clearly define the problem or subject to be discussed by having a well-formulated question from the beginning
    a. Example: Our project consists of three distinct goals we have listed them and now we need to formulate them into action items.
2. Review the topic by asking "why", "how", or "what" questions
    a. Examples:
        i. Why are we doing the project?
        ii. How will we accomplish the goals?
        iii. What are the project's parameters within the time constraints we have?
3. Give team members time to think over the problem

a. Example - Send out the clearly defined problem via e-mail 24 hours before the brainstorming session so the team members have time to think about the problem.
b. Set up a blog.
c. Text message each other before the meeting.

4. Open the meeting to discussion, making clear that all opinions will be respected. No evaluation or judgment of any of the ideas presented should be voiced, including nonverbal communications (gestures, etc.), and praise or criticism. Remember there are no right or wrong ideas. Some ideas may not seem appropriate at one moment but may be useful later
    a. Example - Add as an agenda item. The project leader clearly states that the discussion will be open ended and non-judgmental no matter how wacky the ideas. Or you can use text messaging to build on each other's ideas to present at a meeting. Text messaging each other is a modern form of brainstorming.
5. The more ideas the better the brainstorming session. Build on each others' ideas and combine ideas that are similar if the team agrees
    a. Example: The Project Leader takes concepts from one idea and rephrases the idea by combining the main concept with another like idea, which gives strength to both ideas. This technique is like blogging.
    b. Use a blog to build on each other's ideas.
6. Ask clarifying questions
    a. Bring copies of text messages to meeting to review and clarify
    b. Rephrase and paraphrase all of the ideas on a blank slate, new computer screen, or blank sheet of paper.
7. Recorder is responsible for writing down all expressed ideas and communicating them in the Weekly Progress Reports as brainstorming session ideas
8. No discussion on any idea proposed during the generation process
    a. Combining ideas is not the same as discussion.

9. Don't judge
10. The Project leader is responsible for moving the team to the decision-making part of the brainstorming session when appropriate.

**The Affinity Diagram An Idea Generating Tool**

The purpose is to generate as many brainstorming ideas as possible and then arrange them into affinity groups.

1. Frame the question
2. Brainstorm ideas on post it cards or bring your text messages or e-mail ideas
    a. One idea per post it
    b. Use short phrases
    c. Write large
3. Post the post-its one at a time on a flip chart, a wall, or a blackboard
4. Clarifying questions are asked as each card goes up
5. Categorizes the cards by moving them with other like ideas
6. Move the cards as many times as necessary
7. Consensus can't be reached about the affinity of a particular card, make a duplicate for both categories
8. Create a header card for each completed group

(Source: Memory Jogger)

**Mission Statement**

A mission statement describes the best possible outcome and asserts the team's ability to articulate and execute a vision. The mission statement determines the creativity, quality, and originality of a team's ideas and solutions. A powerful mission statement should stretch expectations and aspirations helping the team to jump out of their comfort zone. A mission statement can generate a mental image to stimulate an emotional response that can serve to invigorate and motivate the team. The project leader facilitates the team in the creation of the mission statement. A vision statement can be a corporate long-term goal. Your mission statement will be your team's long term goal for the project with specific references to how you will interact as a team as well as how you will plan the project. The success of a project is the ability of the team to make the transition from idea to action. New projects can become stalled during the transition from forming ideas to accomplishing them. Teams need to organize the project development process by creating a mission statement, creating goals, prioritizing tasks, and evaluating team performance through developed systems of behavior called ground rules. The mission statement consist of three elements:

**One**, define the project's primary goals. Goals are the foundation and the reasons for coming together to accomplish the project. This element may be augmented and expanded or change direction during a research project therefore reviewing the mission statement for accuracy is important. Discussions are focused on:

1. Delineating the purpose, values, objectives, and direction of the team by providing a clear and compelling statement of the team's direction
2. Defining flexibility and ability to continuously improve team and task process
3. Explaining the team's commitment to innovative approaches for maintaining quality task approaches to problem solving
4. Identifying what the team is doing long term
5. Discuss how you are going to achieve extraordinary goals

**Two,** define the project's formal organizational structure. Use ground rules, meetings, reporting activities and other team structures to support the organizational structure. This element changes to facilitate the project's goals. Discussions are focused on:

1. Definition of your team culture
2. Authority for team to improve
3. Team's commitment to innovative approaches for maintaining quality team approaches to problem solving
4. Sources of the team's competitive strengths and advantages (use exercises).

**Three** define the project's daily operational structure. Use your knowledge of each other's strengths and weaknesses and time availability to create daily operational structure. This element may change to meet the project's goals within the context of resources available. Discussions are focused on:

1. Describing communication structure
2. Plan how to be flexible and to continuously improve team and task process.
3. Discuss a system to be used for innovation and quality
4. Create a system for problem-solving
5. How to implement qualifications for a quality work product.

**How to Use a Mission Statement in a Project Setting:**

1. Mission statements are the first collaborative effort in the team.
2. Periodically review the mission statement to make any necessary revisions.
3. Empower the team using the mission statement and ground rules to create systems of behavior that the team can follow to prevent and solve problems.
4. Commitment to a vision improves teamwork and establishes an ethical system of research.

Projects have specific objectives that need to be supported by their own project culture. Projects include an assemblage of people enveloping a concept or idea and particular actions. Discovering, and even more important creating, and maintaining the character of that culture, is an important job of the project leader. If a team truly intends to complete their mission, they must deflect the temptation to depart from their statement unless, as in some cases, the project may reinvent itself as research leads in a different direction. Therefore, as stated, any mission statement created for a research project team must include the idea of flexibility, the ability to collaborate and change their mission and follow where the research leads your team. If your team stays true to a flexible strategy, and maintains a purposeful ethical persona that is articulated in the mission statement your chances for a successful conclusion to the project are enhanced. (Adapted from Nahavandi, A., 1997. The Art and Science of Leadership. London, UK: Prentice Hall International Dubrin, A.J., 1995. LEADERSHIP Research Findings, Practice, and Skills. Boston, MA: Houghton Mifflin Company.)

**10.26 Mission Statement Example -** The team will pursue the creation a bifunctional catalyst for dry reforming of methane, while encouraging members to share their strengths and abilities. An open and collaborative environment will be promoted to allow each individual to gain engineering experience, permitting the mastery of interpersonal skills needed to achieve success in an industrial or research setting. The team is committed to work efficiently and to continually assess each individual's and the team's progress to ensure a successfully well tested, quality catalytic design that is reproducible.

**Sample Vision and Mission Statements:**

**Microsoft Mission Statement**

Our Mission at Microsoft: we work to help people and businesses throughout the world realize their full potential. This is our mission. Everything we do reflects this mission and the values that make it possible. Our Values as a company, and as individuals: we value:

1. Integrity and honesty.
2. Passion for customers, for our partners, and for technology.
3. Openness and respectfulness.
4. Taking on big challenges and seeing them through.
5. Constructive self-criticism, self-improvement, and personal excellence.
6. Accountability to customers, shareholders, partners, and employees for commitments, results, and quality.

Microsoft's vision: "A personal computer in every home running Microsoft software."

**Coca Cola's Mission Statement**

Everything we do is inspired by our enduring mission: To Refresh the World... in body, mind, and spirit.

To Inspire Moments of Optimism... through our brands and our actions.

To Create Value and Make a Difference... everywhere we engage.

"COCA COLA's VISION To achieve sustainable growth, we have established a vision with clear goals.
Profit: Maximizing return to shareowners while being mindful of our overall responsibilities.

People: Being a great place to work where people are inspired to be the best they can be.

Portfolio: Bringing to the world a portfolio of beverage brands that anticipate and satisfy peoples; desires and needs.

Partners: Nurturing a winning network of partners and building mutual loyalty.

Planet: Being a responsible global citizen that makes a difference.

**Starbuck's Mission Statement**

"Establish Starbucks as the premier purveyor of the finest coffee in the world while maintaining our uncompromising principles as we grow. The following six guiding principles will help us measure the appropriateness of our decisions: Provide a great work environment and treat each other with respect and dignity. Embrace diversity as an essential component in the way we do business. Apply the highest standards of excellence to the purchasing, roasting and fresh delivery of our coffee. Develop enthusiastically satisfied customers all of the time. Contribute positively to our communities and our environment. Recognize that profitability is essential to our future success. "

**Gehry Technologies Mission Statement**

Gehry Technologies ("GT") is a building industry technology company providing integrated, digitally driven construction tools and methodologies to companies and their projects. GT brings fifteen years experience applying advanced digital technologies to complex building projects undertaken by Gehry Partners and other leading architecture and engineering companies. Our clients are firms and building teams interested in moving beyond the limits of drafting and paper driven project management and into 21st century, digitally enabled design and construction practices. Gehry Technologies promotes this transformation of building design and delivery practices through three inter-related Centers of effort: Software Products, Consulting and Services and Research and Education. Project teams working with GT's technologies and services can anticipate many benefits relating to improved quality and reduced costs, including: * Improved visibility by project leadership into information developed by the extended building team, * Integration of financial and other non-geometric data with project geometry, * Improved coordination of building systems to identify and address potential conflicts before construction, * Management of project data through version and revision tracking, * Integration between AE documentation and fabrication or construction activities, * Reduced project transaction costs (paper printing, rework, etc.).

**MetalSoft Mission Statement**

MetalSoft is dedicated to delivering the most advanced innovation and technology to the sheet metal fabrication industry. Our vision is to build a bridge between humans and machines through software technology. We believe that effective communication between humans and machines is the key to the future of the manufacturing industry. To implement this vision, MetalSoft has built a global research and development network that extends throughout the U.S., Japan, Italy, China, and India. True to our Engineering roots, MetalSoft maintains an innovation-centric corporate culture designed to promote and develop the creativity of each employee and maximize our ability to meet the needs of the fast-changing sheet metal fabrication industry.

**Apple Mission Statement**

Apple Computer "To produce high-quality, low cost, easy to use products that incorporate high technology for the individual. We are proving that high technology does not have to be intimidating for non-computer experts."

**10.26 Mission Statement**

The team will pursue our goal of creating a bifunctional catalyst for dry reforming of methane, while encouraging members to share their strengths and abilities. An open and collaborative environment will be promoted to allow each individual to gain engineering experience, permitting the mastery of interpersonal skills needed to achieve success in an industrial or research setting. The team is committed to work efficiently and to continually assess each individual's and the team's progress to ensure a successfully well tested, quality catalytic design that is reproducible.

**Place your post its here.**

## 6. Creation of Ground Rules. Using your knowledge of each other create three ground rules you would want to have on your team. Take the Ground Rules examples and edit the examples to form adaptable systems your team can execute while performing the tasks.

**Team Time Schedule for Experiments and Meetings:** Use a web-based calendar and submit the URL to bburrell@mit.edu or upload to Dropbox