

# TIDEE

Transferable Integrated Design Engineering Education



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## Communication

### Section 1: Design Journals and Documentation

This section includes:

- **Planning a Personal Design Journal**
- **Prescribing Team Design Documentation**
- **Providing Feedback on a Design Journal**

The activities in this section will aid you in communicating and documenting your ideas.

Humans have a propensity to forget details. As such, many potential ideas are lost. *Planning a Personal Design Journal* provides an opportunity to define a structure for recording your thoughts and observations, which may in turn serve as a springboard for creativity. Moreover, the consistent use of a journal may also facilitate the achievement of your personal and professional goals.

*Prescribing Team Design Documentation* is an activity that explores documentation procedures in the context of Capstone design project. Your team identifies documents to archive as well the storage process to be used.

*Providing Feedback on a Design Journal* analyzes the content of a design journal. Peers critique the usefulness of each others journal entries. The end goal is to help define criteria that guides good journaling habits.

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## Activity: Planning a Personal Design Journal

*Personal journals are valuable tools for engineers to document ideas, events, learning, and work products. The most useful journals are constructed to facilitate one's achievement of high priority personal and professional goals. In this activity, you will consider uses for a personal journal and develop journaling practices that help you journal more effectively to support achievement of your goals.*

**Objective:** Develop journaling processes that facilitate your achievement of personal and professional goals.

### Tasks

1. Assign team roles that support this activity.
2. As a team, develop a list of goals associated your team design project. Examples may include skill development, new knowledge, patentable product, etc. Record these on the Design Journal worksheet.
3. On the same worksheet, list journal criteria that must be achieved to support the team goals. Identify journal content, format, and practice details that will help achieve these goals. Examples may include dated entries, reflections on learning, bound pages, daily entries, etc.
4. Prioritize your journal design criteria.

### Deliverables

1. The team Reporter presents:
  - a) The most important team goals
  - b) Priority design criteria for a personal design journal
2. The team Reflector presents:
  - a) Features of the journal that will facilitate increased learning
  - b) An insight gained personally through this activity
3. Individual homework (due next class): Prepare a typed template for design journaling that will support your personal and professional goals throughout the capstone design project.

### Criteria for Success

- Team members articulate a broad set of goals for the capstone course.
- Journal design criteria clearly prescribe content, format, and practices to support goal achievement.
- Team members gain increased understanding of journaling.

### Resources

- Personal experiences keeping journals
- Knowledge of team and personal goals
- Worksheet: Design Journal

# Worksheet: Design Journal

**Design Team Goals**

**Journal Design Criteria**

**Content or Topics**

**Format, Attributes, Practices**

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## Activity: Prescribing Team Design Documentation

*Team documentation of design project achievements is important for the sharing of information and the retention of archival project information. To ensure that proper project documentation is maintained, teams must establish procedures and places for project document storage. In this activity, your team will define specifications for project documentation to be employed throughout the capstone design project.*

<b>Objective:</b> Define specifications for team project documentation supporting a capstone design project.
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### Tasks

1. Assign team members roles that support this activity.
2. As a team, identify the purposes of team documentation (in contrast to individual documentation) of design project achievements. Examples may include: making information available to members, documenting designs at specific stages, etc. Record your purposes on the worksheet provided.
3. On the same worksheet, identify types of documents that are important to documentation of your project. Examples may include: computer code, drawings, project schedule, etc.
4. List procedures and other requirements for proper preparation and archival of project documentation (e.g., security, availability, responsibility). Add this to the worksheet.

### Deliverables

1. The team Reporter presents:
  - a) Types of team documents required for specific purposesProcedural requirements for team documentation
2. The team Reflector presents:
  - a) A strength of the team in this activity and its value to the activity
  - b) An area for team improvement and how that might be achieved
  - c) An insight gained personally through this activity
3. Team homework (due next class): Prepare a 1-page guideline for team project documentation. This may note facility issues that need to be addressed.

### Criteria for Success

- Teams delineate key requirements for team documentation.
- Teams give evidence of their commitment to team project documentation.
- Team members' gain increased understanding about project documentation.

### Resources

- Personal experiences with team projects and design
- Knowledge of team and personal goals
- Worksheet: Design Journal

# **Worksheet: Team Design Records**

**Purposes of Team Design Records**

**Types of Team Records**

**Requirements/Procedures**

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## **Activity: Providing Feedback on a Design Journal**

*Design journal quality improves when individuals receive and process constructive feedback on their journals. This requires individuals to understand the criteria for quality journaling and to be effective in giving and receiving helpful feedback. In this activity, you will define criteria for quality journals, review methods for constructive assessment, and provide feedback on student journals.*

**Objective:** Develop skills for giving and receiving feedback on personal design journals.

### **Tasks**

1. Assign team members roles that support this activity.
2. As a team, identify criteria for each of the types of journal entries listed on the worksheet. Record these on the Journal Feedback Guidelines worksheet.
3. On the same worksheet, identify guidelines for reviewing and providing useful feedback on journal entries.
4. Individuals who are willing to accept peer feedback, exchange journals and provide feedback using the attached Journal Feedback worksheet.

### **Deliverables**

1. The team Reporter presents:
  - a) Criteria for journal entries
  - b) Guidelines for providing useful feedback
2. The team Reflector presents:
  - a) The issue of greatest concern in journal reviewing
  - b) An insight gained personally through this activity

### **Criteria for Success**

- Teams articulate useful criteria for journal entries.
- Teams identify practical issues that affect providing useful journal feedback.
- Team members gain increased understanding of journaling.
- Members gain skill in giving and receiving feedback.

### **Resources**

- Personal experiences with journals and receiving feedback
- Worksheet: Journal Feedback Guidelines
- Worksheet: Journal Feedback

# **Worksheet: Journal Feedback Guidelines**

## **Criteria for Useful Journal Entries**

**Overall**

**Ideas/Concepts**

**Calculations/Analysis**

**Readings/Notes**

**Reflections/Learning**

**Guidelines for Providing Feedback on Journaling**

## Worksheet: Journal Feedback

Feedback to: \_\_\_\_\_

Date: \_\_\_\_\_

Review by: \_\_\_\_\_

Pages reviewed: \_\_\_\_\_

**Journal Strengths/Benefits**

**Areas to Improve/Suggested Actions**

**Insights from Review**