Professors L. Young, <a href="mailto:lry@mit.edu">lry@mit.edu</a> and Dr. Michelle Yeh, yeh@mitre.org
Teaching Assistant, Tatsuki Kashitani, tatsuki@mit.edu

### **Goals of Course**

- (1) To provide an appreciation of the salient human factors which affect human (system) performance and human (system) error in complex human-machine systems such as aircraft, spacecraft, highway and rail vehicles, process and manufacturing plants, etc.
- (2) To acquaint students with experimental literature in the field.
- (3) To enable students to perform experiments with human subjects to evaluate control, display and system/task/procedure designs.

# **Principal Texts** (chapter and section readings assigned in schedule)

- (1) Sanders and McCormick, Human Factors Engineering & Design
- (2) E. Wiener and D. Nagel, *Human Factors in Aviation*

#### Miscellaneous Notes

### Grading

### 16.400 (undergrad)

- > 3 quizzes count 25% each
- Design projects and homework count 25%

### 2.181J / 16.453J (grad)

- ➤ 3 quizzes count 20% each
- Design projects and homework count 20%
- > Term project counts 20%

# **Design Project**

Students will be divided into teams. <u>Each team will prepare two reports</u>, and the team grade will be counted toward the individual's grade.

### **Term Project** (for grad credit)

An experiment with human subjects on some human display, control or performance problem. Students will be assigned to either Michelle Yeh or LarryYoung for guidance. Example problems will be provided. A 10-minute oral report and a 10-15 page written report will be due at the end of the term.