

**Report of the Subcommittee to review the course number: ARC101**

**Title of the course: (Introduction to Conducting Meetings) 2L-1T-3P-0A (10 credits)**

**Objective of the course:** The course prepares the student to be able to make effective contributions to any meeting and to be able to conduct one.

**Specialized Infrastructure requirement:** In addition to the lectures, the course is associated with a laboratory session that will be carried out in the low-speed and high-speed laboratory facilities. The major equipment needed for the experiments are: wind-tunnels, hot wire, force balance, lathe and milling machines for model preparation.

**Instructional aspects:** It is preferable that the tutorial should be either on a Friday or on a Monday so that concepts can be discussed there before being applied in the laboratory.

**Course content:** *(This will go in the “Courses of Study” book. Please note that the duration of each lecture is 50 minutes.)* Introduction to sketching, Principal views, principles of dimensioning, Introduction to computer-aided graphics, missing view, sectional view, assembly, overview of pictorial representation, and isometric drawing in detail, perspective drawing, lines, planes, auxiliary view, relationship between lines and planes (visibility, perpendicularity, parallelism, distances), intersection of lines and planes, intersections of solids and development of lateral surfaces.

**Lecture-wise break-up: (please note that the duration of each lecture is 50 minutes)**

<b>Topic</b>	<b>Suggested number of lectures</b>
Introduction to sketching	1
Principal views, principles of dimensioning	4
Introduction to computer-aided graphics	2
Missing view, sectional view	3
Assembly	1
Overview of pictorial representation, and isometric drawing in detail	2
Perspective drawing	2
Lines, planes, auxiliary view	4
Relationship between lines and planes (visibility,	3

perpendicularity, parallelism, distances), intersection of lines and planes	
Intersections of solids and development of lateral surfaces	5
<b>Total number of lectures</b>	<b>27</b>

**Laboratory Sessions:**

Sessions	Name of Experiment
1	Demonstration session: visualization in smoke tunnel
2	Measurement of pressure around a cylinder for a range of Reynolds Numbers
3	Calibration of force balance
4	Hot wire: measurement of vortex shedding frequency
5	Demonstration session: Mach 3 flow past a cone
6	Laboratory Project, session 1: set-up of experiment
7	Laboratory Project, session 2: calibration
8	Laboratory Project, session 3: measurements
9	Laboratory Project, session 4: measurements and data analysis
<b>Total number of laboratory sessions: 9</b>	

**Suggested text and reference material:**

**Main differences suggested in this review:**

- (1) Based on the committee members who among them have taught the course about 10 times, need for the tutorial is recommended.
- (2) Students are introduced to computer-aided graphics right in the beginning.
- (3) It is recommended that most of the laboratory exercises be carried out both by hand as well as by using the computer.

Member 1

Member 2

Member 3

Member 4

(Names and signatures of the committee members)