

Semester V
Theory Course
IMTE 502 Adventure Sports Category (Aero Sports)

ESSENCE OF THE COURSE

This course offers an introduction of Adventure Sports in contest to Air. It aims to develop understanding about Aero sports. Its historical development, uses and risks.

COURSE LEARNING OUTCOMES

After completing this course, the students will be able to

-) Understand the concept of Aero Sports.
-) Understand the historical development of Aero Sports.
-) Describe the different aspects of Aero Sports and adventure and risks involved in Aero Sports. .

COURSE CONTENT**25.1 Unit – I:**

Introduction to aero sports, Meaning and definition, Classification of aero sports, Understanding wind and its effects in aero sports, Understanding aerodynamics for aero sports, Understanding rules and regulations for aero sports

25.2 Unit – II:

Equipment, Understanding various kinds of wings for aero sports, Understanding powered vehicles and its use, Understanding parts of fleet, Understanding various kinds of accessory equipment for aero sports and its use

25.3 Unit – III:

Techniques, Understanding Ground Handling for aero sports, Understanding Take-off and Landing, Techniques for non-powered aero sports, Techniques for powered aero sports, Understanding aerodynamics, Understanding manures to control vehicles, **Safety Measures**, Preparation to manage the risk in aero sports, Back-up systems to manage risk and preparation for rescue in aero sports, Rescue, Evacuation & First Aid in aero Sports, Understanding rescue in various aspect of aero sports, Rescue & evacuation mechanisms and systems, Communication in rescue, Various rescue organizations, First Aid in aero Sports: Meaning, Definition, aims and need

25.4 Unit – IV:

Planning and Organization, Reece of new location, Planning based on type and Nature of Activities i.e. training and coaching, recreational, tour, expedition, Itinerary Management, Selection of Equipment, Selection of leader and team, Understating the role of photography, documentation and incident reporting in aero sports

TEACHING LEARNING STRATEGIES

-) The content of the syllabus may be taught by using lecture method, discussion method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

MODE OF TRANSACTION

-) Laboratory Work/Field Work/Outreach Activities/Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Presentations/Self- Learning Instructional Material etc.

ASSESSMENT RUBRICS

Marks: 100 (70+30)

-) End Semester Exam **Marks: 70**
-) Classroom Test, Project Work, Assignments, Presentations **Marks: 30 (10+20)**
 - o Classroom Tests: Best one out of two unit tests **(Marks: 10)**
 - o Project Work, Assignments, Presentations **(Marks: 20)**

SUGGESTED READINGS

1. Bob Howes, **The Ballooning Manual**, The Crowood Press Ltd 1991
2. Brian Germain, **Parachute And Its Pilot**, 5th Edition, Adventure Wisdom LLC 2013
3. Charles Shea-Simonds, **Sport Parachuting**, 3rd Edition, A & C Black Publishers Ltd 1979
4. Chris Donaldson, **Skydive: Sport Parachuting Explained**, The Crowood Press Ltd 2000
5. Dan Poynter, **Parachuting: The Skydiver's Handbook**, 10th Edition, Para Publishing 2009
6. David Hempleman-Adams, **Ballooning: From Basics to Record Breaking**, The Crowood Press Ltd 2001
7. David Sollom, **Paragliding: From Beginner to Cross-country**, The Crowood Press Ltd 1998
8. Dennis Pagen, **Hang Gliding Flying Skills: A Complete Instruction Manual for Beginners to Intermediates**, 2nd Edition, Sport Aviation Publications,U.S. 1991
9. Dennis Pagen, **Performance Flying: Hang Gliding Techniques for Intermediate and Advanced Levels**, Sport Aviation Publications,U.S 1993
10. Derek Piggott , **Understanding Flying Weather**, 2nd Edition, A & C Black 2004
11. Ellen Labrecque, **Air Sport**, Raintree 2012
12. Federal Aviation Administration, **Balloon Flying Handbook**, Skyhorse Publishing 2007
13. Garrett Soden, **Defying Gravity**, W. W. Norton & Company 2005
14. Heidi Zeigler, **X-Treme Outdoors: Hang Gliding**, Children's Press 2003
15. Jeff McCall, **Paragliding Freedom**
16. Jerry A. Eichenberger, **Air Sports: The Complete Guide to Aviation Action and Adventure**, McGraw-Hill Inc 2003
17. Jim Bates, **Parachuting: From Student to Skydiver**, TAB Books Inc 1990
18. Noel Whittall, **Paragliding: A Complete Guide**, New Edition, The Crowood Press Ltd 1998
19. Noel Whittall, **Paramotoring**, The Crowood Press UK 2005