

University of Management and Technology

Course Outline

Course code: PT 220

Course title: General Navigation

Program	BS Aviation Professional pilot
Credit Hours	3-0
Duration	Semester 01
Prerequisites	Nil
Resource Person	TBD
Counseling Timing (Room#)	TBD
Contact	TBD

Chairman/Director signature.....

Dean's signature.....

Date.....

Course Learning Outcomes: (CLOs)

S No	CLO Statement	Learning Domain and level
1	Explain the fundamental concepts of the solar system, time systems, dateline, and their application in determining sunrise, sunset, and twilight for navigation purposes.	C1
2.	Apply knowledge of directions, distance, latitude, longitude, charts, and projections to accurately perform dead reckoning and in-flight navigation calculations.	C2
3.	Analyze and interpret magnetic variation, compass errors, and the operational use of direct-reading and standby compasses, including situations requiring compass swings, to ensure safe and accurate navigation.	C3

CLO – PLO Mapping:

<u>CLOs</u>	<u>PLO 1</u> Aeronautical Knowledge	<u>PLO 2</u> Flight Proficiency	<u>PLO 3</u> Regulatory Awareness	<u>PLO 4</u> Safety & Risk Management	<u>PLO 5</u> Communication Skills	<u>PLO 6</u> Ethical Responsibility	<u>PLO 7</u> Technological Adaptability	<u>PLO 8</u> Teamwork & Leadership	<u>PLO 9</u> Critical Thinking & Problem Solving	<u>PLO 10</u> Lifelong Learning
1	★									
2	★	★								
3	★			★						

Learning Methodology:

1. Learning methodology will include interactive class sessions followed by Power Point Slides containing Flight videos.

- Students would be regularly evaluated through quizzes to keep them in pace with the course flow.

Grade Evaluation Criteria

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

Marks Evaluation	Marks in percentage	Details
Quizzes (x 4)	15%	QUIZ 1: CLO 1
		QUIZ 2: CLO 2
		QUIZ 3: CLO 2
		QUIZ 4: CLO 3
Assignments (x3)	10%	Assignment 1: CLO 1
		Assignment 2: CLO 2
		Assignment 3: CLO 3
Mid Term Examination	35% {CLO 1 , CLO 2 }	
End Term Examination	40% { CLO1 , CLO2 , CLO3 }	
Total	100%	

Recommended Text Books:

EASA textbook for the General Navigation. Soft copies will be provided

Reference Books:

EASA Oxford

Course Curriculum Reference:

Please Visit Pakistan Civil Aviation Authority (PCAA), Learning Objectives (LOs) for Personnel Licenses – ATPL, MPL, CPL (Aero plane And Helicopter).

Calendar of Course contents to be covered during semester

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Week	Course Contents	Reference Chapter(s) as per PCAA Learning Objectives	<u>Course Learning Objective (CLO)</u>

1.	The solar system, The Earth	061 01 01 00, 061 01 02 00	CLO1
2.	Apparent time and Universal Time Coordinated (UTC)	061 01 03 01 and 061 01 03 02	
3.	Local Mean Time (LMT), Standard time (ST) and Dateline , QUIZ 1 , Assignment 1	061 01 03 03, 061 01 03 04 and 061 01 03 05	CLO1
4.	Determination of sunrise (SR), sunset (SS) and civil twilight	061 01 03 06	CLO2
5.	Directions and Distance	061 01 04 00 and 061 01 05 00	
6.	Convergency, conversion angle , QUIZ 2	061 01 02 02	
7.	MAGNETISM AND COMPASSES	061 02 00 00	CLO1
8.	CHARTS , Latitude, difference of latitude , Assignment 2	061 03 01 00 to 061 03 02 03	CLO2
9.	Longitude, difference of longitude , Mid Term	061 01 02 04	
10.	CHARTS , Determination of sunrise (SR), sunset (SS) and civil twilight	061 03 03 00 , 061 01 03 06	
11.	DEAD RECKONING (DR) NAVIGATION	061 04 01 00 to 061 04 03 00	CLO3
12.	Relationship between nautical miles and minutes of latitude and minutes of longitude , QUIZ 3	061 01 05 03	CLO2
13.	IN-FLIGHT NAVIGATION	061 05 00 00 to 061 05 03 00	CLO3
14.	Knowledge of the principles of the direct-reading (standby) compass	061 02 01 00	CLO1
15.	Situations requiring a compass swing , QUIZ 4 , Assignment 3	061 02 01 03	CLO3

16.	General properties of miscellaneous types of projections , Direct Mercator	061 03 01 00 , 061 03 01 01	CLO1
17.	Final Exam	CLO 1 , CLO 2 , CLO 3	

Class Policy

STUDENTS ARE REQUIRED TO READ AND UNDERSTAND ALL ITEMS OUTLINED IN THE PARTICIPANT HANDBOOK

CLASS ATTENDANCE: Students need to be in class at the assigned time. After 10 minutes past the assigned time, the students will be marked absent.

TURN OFF MOBILE PHONE! It is unprofessional to be texting or otherwise.

READ EMAILS! Participants should regularly check their university emails accounts regularly and respond accordingly. Students would be responsible if they miss a deadline because of not reading the emails.

CLASS ATTENDANCE POLICY: A minimum of 75% attendance is required for a participant to be eligible to sit in the final examination. Being sick and going to weddings is absence and will not be counted as present. Participants with less than 75% of attendance in a course will not be allowed to take end term exams. International students who will be leaving for visa during semester should not use any days off except for visa trip to avoid reaching short attendance.

MOODLE: UMT –LMS (Moodle) is an Open Source Course Management System (CMS), also known as a learning Management System (LMS). Participants should regularly visit the course website on MOODLE Course Management system, and fully benefit from its capabilities. In case of any problem while using MOODLE, visit <https://lms.umt.edu.pk/login/index.php>.

HARASSMENT POLICY: Sexual or any other harassment is prohibited and is constituted as punishable offence. Sexual or any other harassment of any participant will not be tolerated. All actions categorized as sexual or any other harassment when done physically or verbally would also be considered as sexual harassment when done using electronic media such as computers, mobiles, internet, emails etc.

USE OF UNFAIR MEANS/ HONESTY POLICY: Any participant found using unfair means or assisting another participant during a class test/quiz, assignments or examination would be liable to disciplinary action.

PLAGIARISM POLICY: All students are required to attach a “Turnitin” report on every assignment, big or small. Any student who attempts to bypass “Turnitin” will receive “F” grade which will count towards the CGPA. The participants submit the plagiarism report to the resource person with every assignment, report, project, thesis etc. If student attempts to cheat Turnitin, a second “F” will be awarded that will count towards the CGPA. There are special rules on plagiarism for final reports etc. all outlined in your handbook

COURSE WITHDRAWAL POLICY: Students may withdraw from a course till the end of the 12th week of the semester. Consequently, grade ‘W’ will be awarded to the student which shall have no impact on the calculation of the GPA of the student. A Student withdrawing after the 12th week shall be automatically awarded “F” grade which shall count in the GPA.

COMMUNICATION OF RESULTS: The results of quizzes and assignments are communicated to the participants during the semester and answer books are returned. It is the responsibility of the course instructor to keep the participants informed about his/her progress during the semester. The course instructor will inform a participant at least one week before the final examination related to his or her performance in the course.

Date.....