ALAGAPPA UNIVERSITY

(Accredited with A+ Grade by NAAC (CGPA: 3.64) in the Third Cycle), Graded as Category-I University and granted autonomy by MHRD-UGC)

DIRECTORATE OF COLLABORATIVE PROGRAMMES



Certificate in Airport Ground Operations

Regulations and Syllabus

[For those who join the Course in July 2023 and after]

CHOICE BASED CREDIT SYSTEM

ALAGAPPA UNIVERSITY

MOTTO

Excellence in Action

VISION

Achieving Excellence in all spheres of Education, with particular emphasis on Pedagogy, Extension, Administration, Research and Learning (PEARL).

MISSION

Affording a High Quality Higher Education to the learners so that they are transformed into intellectually competent human resources that will help in the uplift of the nation to Educational, Social, Technological, Environmental and Economic Magnificence (ESTEEM).

QUALITY POLICY

Attaining benchmark quality in every domain of PEARL to assure the stakeholders delight through professionalism exhibited in terms of strong purpose, sincere efforts, steadfast direction and skilful execution.

COURSE OBJECTIVES

Providing instructions and training in such branches of learning, as the University may determine. Fostering research for the advancement and dissemination of knowledge.

QUALITY QUOTE

Quality Unleashes Opportunities Towards Excellence (QUOTE).

GENERAL INSTRUCTIONS AND REGULATIONS

Certificate Airport Ground Operations (Semester Pattern) is conducted by Alagappa University, Karaikudi, Tamil Nadu through its Collaborative Institutions.

Applicable to all the candidates admitted from the academic year 2023 onwards.

1. Eligibility:

A pass in the Higher Secondary Examination (HSC) or an examination accepted as equivalent thereto by the Syndicate. Candidate for admission to **Certificate Airport Ground Operations** shall be required to **have passed qualifying examination**.

2. For the Certificate:

The candidates shall have subsequently undergone the prescribed programme of study in a institute for not less than one academic year, passed the examinations prescribed and fulfil such conditions as have been prescribed therefore.

3. Admission:

Admission is based on the marks in the qualifying examination.

4. Duration of the Course:

The course shall extend over a period of Six Months under SEMESTER pattern accounting to one SEMESTER.

5. Minimum Duration of Programme

The programme is for six month. It shall consist of one semester viz. Odd or Even semesters. Odd semesters shall be from June / July to October / November and even semesters shall be from November / December to April / May. It shall be 90 working days consisting of 6 teaching Hours per working day (5 days/week).

6. Medium of Instruction

The medium of instruction is English / Tamil.

7. Teaching Methods

The classroom teaching would be through conventional lectures, the use of OHP, PowerPoint presentation, and novel innovative teaching ideas like television, smart board, and computer-aided instructions. Periodic field visit enables the student for gathering practical experience and up-to-date industrial scenario. Student seminars would be arranged to improve their communicative skills. In the laboratory, safety measures instruction would be given for the safe handling of chemicals and instruments. The lab experiments shall be conducted with special efforts to teach scientific knowledge to students. The students shall be trained to handle advanced instrumental facilities and shall be allowed to do experiments independently. The periodic test will be conducted for students to assess their knowledge. Slow learners would be identified and will be given special attention by remedial coaching. Major and electives would be held in the Department and for Non-major electives students have to undertake other subjects offered by other departments.

8. Standard of Passing and Award of Division:

- 1. Students shall have a minimum of 40% of total marks of the University examinations in each subject. The overall passing minimum is 40% both in aggregate of Continuous Internal Assessment and external in each subject.
- 2. The minimum marks for passing in each theory / Lab course shall be 40% of the marks prescribed for the paper / lab.

- 3. A candidate who secures 40% or more marks but less than 50% of the aggregate marks prescribed for three years taken together, shall be awarded THIRD CLASS.
- 4. A candidate who secures 50% or more marks but less than 60% of the aggregate marks prescribed for three years taken together, shall be awarded SECOND CLASS.
- 5. A candidate who secures 60% or more of the aggregate marks prescribed for three years taken together, shall be awarded FIRST CLASS.
- 6. Only Part-III subjects were considered for the ranking.
- 7. The Practical / Project shall be assessed by the two examiners, by an internal examiner and an external examiner.

9. Continuous internal Assessment:

- 1. Continuous Internal Assessment for each paper shall be by means of Written Tests, Assignments, Class tests and Seminars
- 2. 25 marks allotted for the Continuous Internal assessment is distributed for Written Test, Assignment, Class test and Seminars.
- 3. Two Internal Tests of 2 Hours duration may be conducted during the SEMESTER for each course / subject and the best marks may be considered and one Model Examination will be conducted at the end of the SEMESTER prior to University examination. Students may be asked to submit at least five assignments in each subject. They should also participate in Seminars conducted for each subject and marks allocated accordingly.
- 4. Conduct of the continuous internal assessment shall be the responsibility of the concerned faculty.
- 5. The continuous internal assessment marks are to be submitted to the University at the end of every year.
- 6. The valued answer papers / assignments should be given to the students after the valuation is over and they should be asked to check up and satisfy themselves about the marks they have scored.
- 7. All mark lists and other records connected with the continuous internal assessments should be in the safe custody of the institution for at least one year after the assessment.

10. Attendance:

Students must have earned 75% of attendance in each course for appearing on the examination.

Students who have earned 74% to 70% of attendance need to apply for condonation in the prescribed form with the prescribed fee.

Students who have earned 69% to 60% of attendance need to apply for condonation in the prescribed form with the prescribed fee along with the Medical Certificate.

Students who have below 60% of attendance are not eligible to appear for the End Semester Examination (ESE). They shall re-do the semester(s) after completion of the programme.

11. Examination:

The examinations shall be conducted separately for theory and practical to assess (remembering, understanding, applying, analysing, evaluating, and creating) the knowledge required during the study. There shall be two systems of examinations viz., internal and external examinations. The internal examinations shall be conducted as Continuous Internal Assessment tests I and II (CIA Test I & II).

A. Internal Assessment

The internal assessment shall comprise a maximum of 25 marks for each course. The following procedure shall be followed for awarding internal marks

Theory - 25 marks

Sr. No.	Content	Marks
1	Average marks of two CIA test	15
2	Seminar/group discussion/quiz, etc.,	5
3	Assignment/field trip report/case study reports	5
	Total	25

Practical - 25 marks

Sr. No.	Content	Marks
1	Average marks of two CIA tests (Practical)	15
	Experiments – Major, Minor, and Spotter	
2	Observation notebook	10
	Total	25

B. External Examination

- ➤ There shall be examinations at the end of each semester, for odd semesters in October / November; for even semesters in April / May.
- A candidate who does not pass the examination in any course(s) may be permitted to appear in such failed course(s) in the subsequent examinations to be held in October / November or April / May. However, candidates who have arrears in practical shall be permitted to take their arrear Practical examination only along with regular practical examination in the respective semester.
- A candidate should get registered for the first-semester examination. If registration is not possible owing to a shortage of attendance beyond the condonation limit / regulation prescribed OR belated joining OR on medical grounds, the candidates are permitted to move to the next semester. Such candidates shall re-do the missed semester after completion of the programme.

Passing Minimum

- A candidate shall be declared to have passed each course if he/she secures not less than 40% marks in the End Semester Examinations and 40% marks in the Internal
- Assessment and not less than 40% for UG and PG 50% in the aggregate, taking Continuous assessment and End Semester Examinations marks together.
- The candidates not obtained 40% for UG and PG 50% in the Internal Assessment are permitted to improve their Internal Assessment marks in the subsequent semesters (2 chances will be given) by writing the CIA tests and by submitting assignments.
- Candidates, who have secured the pass marks in the End-Semester Examination and the CIA but failed to secure the aggregate minimum pass mark (E.S.E + C I.A), are permitted to improve their Internal Assessment mark in the following semester and/or in

University Examinations.

A candidate shall be declared to have passed the Project Work if he /she gets not less than 40% in each of the Project Report and Viva-Voce and not less than 40% UG and in PG 50% in the aggregate of both the marks for Project Report and Viva-Voce.

- A candidate who gets less than 40% for UG and PG 50% in the Project Report must resubmit the Project Report. Such candidates need to take again the Viva- Voce on the resubmitted Project.
- Each student should have taken ---- credits as a core course, thus totalling least --- + extra credits required to complete **Certificate Course.**

12. Fee Structure

Course fee shall be as prescribed by the University and 50% of the course fee should be disbursed to University. Special fees and other fees shall be as prescribed by the Institution and the fees structure must intimated to the University. Course fees should be only by Demand draft / NEFT and AU has right to revise the fees accordingly.

Semester Pattern

Course Fee payment deadline
Fee must be paid before 10 th September of the academic year

13. Other Regulations:

Besides the above, the common regulation of the University shall also be applicable to this programme.

Course Structure

Semester	Subject	Credits
G 1	Core Course - I	3
Sem 1	Core Course – II	3
	Core Practical - I	3
	Total	9

14. Miscellaneous

- 1. Each student possess the prescribed text books for the subject and the workshop tools as required for theory and practical classes.
- 2. Each student is issued with an identity card by the University to identify his / her admission to the course
- 3. Students are provided library and internet facilities for development of their studies.
- 4. Students are to maintain the record of practical conducted in the respective laboratory in a separate Practical Record Book and the same will have to be presented for review by the University examiner.
- 5. Students who successful complete the course within the stipulated period will be awarded the degree by the University.

DEPARTMENT OF AVIATION

VISION

To be the exemplar in the field of Aviation by producing graduates who ensure to develop and strengthen the Aviation Industry contributing to the intellectual, social and economic development of the industry which is served through unique learning management, fuelled by the advanced curriculum to endeavour the highest standards to excel in their Aviation Profession.

MISSION

- To impart quality education through advanced curriculum, which would be delivered by the industry experts.
- To train the students to have updated knowledge of the subjects in the field of aviation and groom them in Intrapersonal & Samp; Interpersonal skills.
- To prepare the students for the current industry standards by providing In- plant training in the updated procedures being followed in the industry
- To create awareness and working knowledge about different platforms in the Aviation Industry and mould the students to be fit for all platforms of the industry

PROGRAMME EDUCATION COURSE OBJECTIVES- (PEO):

	To Produce Graduates demonstrating their critical thinking, communication, team work
PEO-1	and situational awareness skills in the professional life.
PEO-2	To produce graduates who can fulfill the requirements of the aviation industry.
	To produce graduates who shall develop the aviation industry in administration,
PEO-3	process, communication and technological factors
	To assume global careers and leadership responsibilities through consistent learning
PEO-4	with idealistic managerial practices
	To prepare the graduates to compete and excel through the updated methodology being
PEO-5	implemented in the Aviation Industry

PROGRAM OUTCOMES (POs)

	Students shall understand and practise the discipline being followed in the Aviation
DO 1	1 1
PO-1	Industry.
	Students shall be able to read, write and communicate in the professional manner
PO-2	which is highly required for the students in the working atmosphere.
	Students shall be able to develop their task management skills either as an
PO-3	individual or in a team as a subordinate or a superior focusing on completing the
	tasks efficiently with maximum performance on time.
	Students shall be able to acquire the knowledge about aircraft and area related to
PO-4	the parts of aircraft and its operation procedure.
	Students shall get to know about airports, types of airports and several teams and
PO-5	operations being handled by professionals inside and outside the airport.
	Students shall understand Commercial Aviation and operational procedures related
PO-6	to Commercial processes in the Aviation Industry.
	Students shall practise the activities and tasks related to several technical operations
PO-7	and professional communication procedures which connects operations of different
	platforms.
	Self-directed learning Students can work independently, identify any type of
PO-8	appropriate resources required for knowledge source that helps to manage a project,
	mini project, soft skill programs and placement training programs.
	Students shall develop knowledge and get exposure in different platforms of
PO-9	Aviation Industry which helps them in pursuing higher studies in various fields.

PO-10	Students shall understand the value of professional ethics and management principles which guides them in their professional life to cope up within the working environment so that shall avoid unethical behaviour and adopting an objective, unbiased and truthful actions in all aspects of work.
PO-11	Students can develop their leadership skills by involving in several activities like seminar, survey, presentations, internships, training programs and undertaking responsibilities to work as a team or an individual, and setting direction, formulating an inspiring vision by using their management skills.
PO-12	Students shall go for Lifelong learning related to technological and process based updates throughout their life time

PROGRAMME SPECIFIC OUTCOME (PSOs) At the end of the program, the students are

	Able to understand the various scientific principles and they can able to apply
PSO-1	in the field of Aviation.
	Demonstrate ability to research information pertinent to their aviation
PSO-2	discipline.
PSO-3	Realize the need to continuously gain knowledge throughout life within and
	outside of aviation.
	To function as the solution providers or entrepreneurs, who are able to manage,
PSO-4	innovate, communicate, train and lead a team for continuous improvement.
	Graduate will be able to work as a team member which will be a main
PSO-5	requirement in industry or in any business enterprise which will pave the way
	for successful career for the graduate and also play a role for the success of the
	organization in which the graduate is employed.

Certificate in Airport Ground Operations

Semester	Course Code	Name	Credits	Hrs/ Week	Int. Marks	Ext. Marks	Total Marks
	85111	Airport Management	3	6	25	75	100
I	85112	Airport Operations	3	6	25	75	100
	85113	Global Distribution System (GDS) Lab –Practical	3	12	25	75	100
		Library and others		06			
	G	Frand Total	9	30	75	225	300

Paper – I

CORE COURSE – THEORY - I

Subject Code: 85111	AIRPORT MANAGEMENT	Credits 3	Hours/ Week 6						
OBJECTIVES	To earn the knowledge about management ethics & procedures followed in the airports. To study about eh basic air cargo management in airports To understand about the airport structures and its functions To get basic knowledge upon the airport strategic planning								
UNIT- I	Airport Management Airport management — Airport planning — Airport Busin area and Terminal planning, design, and operation — A Organization structure of Airports sectors — Airport Au and Indian scenario of Airport management — Functions ICAO and DGCA.	Airport fun uthorities -	ctions – - Global						
UNIT- II	Air cargo Management Air Cargo Terminology – Principles of Air cargo – Acceptance of special cargo – Perishable cargo – Life saving drugs – Human Remains – Restrictions in acceptance of cargo – Identification of cargo – Cargo History – Concepts and common terms used in Cargo handling – Rules of Cargo – Cargo Rating – Familiarization of cargo Tariff – Rounding of the weights / Dimensions / Currencies – weight rating – specific commodity rates – general cargo rates – valuation cargos – Airway Bill – Function and completion of the airway bills – Labelling & Marking of Packages – Handling cargo – Cargo needing special attention – Dangerous Goods								
UNIT- III	Regulations – DGR classes. Airport Structures & Operations Traffic control – Air traffic services – Runway – Types of Runway – Declared Distances – Airport Signs, Markings & Lightings – Ramp Services – Fuelling – Ground Support Equipment's – Aircraft Load Planning – Weight & Balance								
UNIT- IV	Airport planning and functions Airport Customers – Airport Planning – Terminal plan operation – Airport operations – Airport Functions structure of Airline sectors – Airport Authorities – G scenario of Airport Management.	Organ	ization						

Development of airport planning process – Gate capacity and Taxiway capacit

- Noise control- Runway Orientation - Noise Abatement Procedure - Landing

Airport strategic planning

Aids – Airport emergency response plan.

UNIT- V

COURSE OUTCOMES:

On succes	Knowledge Level				
CO1	L1				
CO2	To grasp the significance of Air cargo management by learning its principle, packaging, DGR and airway bills				
CO3	To unravel about Airport, types of airport, airport structures and operations.	L2			
CO4	L4				
CO5	To learn about the various strategic airport planning for the development	L4			

TEXT BOOKS:

- 1. Basic Airport Management, Dr. Arjun Singh (author), June 2022 (edition), Zorba Books
- 2. Airline and Airport Operations, Edissa Uwayo (author), January 2016 (edition), Notion Press **REFERENCE BOOKS:**
 - 1. Airline Airport and Tourism Management, Dr. Sumeet Suseelan (author), August 2019 (edition), Notion Press
 - 2. Airport Management, C. Daniel Prather (author), October 2015 (edition), Aviation Supplies & Academics Inc
 - 3. Dangerous Good Regulations (DGR), IATA (author), January 2016 (edition), International Air Transport Association (IATA)
 - 4. Business and Corporate Aviation Management, John J. Sheehan (author), May 2013 (edition), Mc Graw-Hill Professional

Mapping Course Outcomes Vs Programme Outcomes

CO/	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
PO												
CO1	1	1	1	2	2	2	2	1	1	1	1	1
CO2	1	1	1	1	1	1	1	1	1	1	1	1
CO3	1	1	1	2	2	2	2	1	1	1	1	1
CO4	1	1	1	2	2	2	2	1	1	1	1	1
CO5	1	1	1	2	2	2	2	1	1	1	1	1
W.AV	1	1	1	1.8	1.8	1.8	1.8	1	1	1	1	1

S –Strong (3), M- Medium (2), L - Low (1)

Mapping Course Outcomes Vs Programme Specific Outcomes

CO/PS	PSO1	PSO2	PSO3	PSO4	PSO5
O					
CO1	2	2	1	1	1
CO2	2	2	1	1	2
CO3	2	2	1	1	1
CO4	2	2	1	1	1
CO5	2	2	1	1	1
W.AV	2	2	1	1	1.2

S – Strong (3), M- Medium (2), L - Low (1)

Paper – II CORE COURSE – THEORY – II

Subject Code:	AIRPORT OPERATIONS	Credits	Hours/
85112		3	Week
			6

OBJECTIVES:	To learn about the airports and its environments							
	To earn knowledge about the airport structures and its							
	operations							
	➤ To learn about the basic airport security							
	➤ To understand the basic informations about Apron management							
Unit - I	Airport Environment							
	Airport – Types of Airports – Controlled Airport – Uncontrolled Airport							
	 Landside and Airside – Cargo Terminal – ATC – Airport Beacon – 							
	Customs and Immigration – Aerobridge operations -Foreign Object and							
	Debris (FOD)							
Unit - II	Airport Structures & Operations							
	Planning – Weight & Balance – Load & Trim – AIP – NOTAM							
Unit - III	Airport Security							
	Frisking – Security at Boarding – Fencing – Improvised Explosive							
	Device – Improvised Biological Device – Classification based on Trigger							
	Mechanism – Airport Metal Detectors – Aircraft Hijacking – Dealing							
	with Hijacking – International Law Issues – Isolated Aircraft Parking							
	Position – Hostage Negotiation – Specifications of Hand Held Metal							
	Detectors – Prohibited Articles – Airport Enforcement Authority							
Unit - IV	Airport Safety							
	Ramp Safety – Safety Briefing – ARFF – Safety Regulation – Airport							
	Emergency Response Plan – Bird Hazard Control – Aviation Noise –							
	Noise Management – Foreign Object Damage – Airport Maintenance –							
	Emergency Evacuation Program							
Unit - V	Apron Management							
	Marshalling of Aircraft – Aircraft Stands – Preparation of Stand and							
	VDGS – Brakes and Chocks – Aircraft safety – Aircraft Pushback							
	Procedure – Fueling – RAMP safety standards – Airside Driving rules –							
	Ground Support Equipments (GSE) – Types of GSE							
	Ground Support Equipments (OSE) Types of OSE							

COURSE OUTCOMES:

On suc	cessful completion of this course, the student will be able to;	Knowledge Level
CO1	To understand about the airport, types of airport and other installations in Airport	L2
CO2	To learn about the Airport structures and the functionality of other concepts of airport operations	L4
CO3	To grasp information about airport security protocols functions and other airport enforcement authorities	L2
CO4	To understand about all airport safety including Ramp safety, Airport maintenance along with emergency response plan	L2
CO5	To get knowledge about the operations and activities in Apron with the support of Ground Support Equipments (GSE)	L3

TEXT BOOK:

1. Airline and Airport Operations, Edissa Uwayo (author), January 2016 (edition), Notion Press

REFERENCE BOOKS:

- 1. Airline Airport and Tourism Management, Dr. Sumeet Suseelan (author), August 2019 (edition), Notion Press
- 2. Aviation and Business Management: Airport Operations, Srikanth K (author), February 2021 (edition), Help to Achieve
- 3. Airport Design and Operations, Antonin Kazda, Robert E. Caves (authors), August 2015 (edition), Emerald Group Publishing Limited
- 4. Airport Operations, Norman Ashford, Pierre Coutu, John Beasley (authors), 2012 (edition), McGraw-Hill Education

Mapping Course Outcomes Vs Programme Outcomes

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	1	2	2	2	2	1	1	1	1	1
CO2	1	1	1	2	2	2	2	1	1	1	1	1
CO3	1	1	1	2	2	2	2	1	1	1	1	1
CO4	1	1	1	2	2	2	2	1	1	1	1	1
CO5	1	1	1	2	2	2	2	1	1	1	1	1
W.AV	1	1	1	2	2	2	2	1	1	1	1	1

S –**Strong** (3), **M**- **Medium** (2), **L** - **Low** (1)

Mapping Course Outcomes Vs Programme Specific Outcomes

CO/PS	PSO1	PSO2	PSO3	PSO4	PSO5
0					
CO1	2	2	1	1	1
CO2	2	2	1	1	1
CO3	2	2	1	1	1
CO4	2	2	1	1	1
CO5	2	2	1	1	1
W.AV	2	2	1	1	1

S –**Strong** (3), **M**- **Medium** (2), **L** - **Low** (1)

Paper – III CORE COURSE- PRACTICAL – I

Subject Code: 85113	GLOBAL DISTRIBUTION SYSTEM (GDS) LAB PRACTICAL	Credits 3	Hours/ Week 12
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OBJECTIVES:	 To understand about the GDS terms and definitions To learn about the fundamentals of air ticketing To grasp the significance of fares and taxes while doing air ticketing Implementation of AMADEUS software for ticketing
Unit - I	Definitions Ticketing Definitions & Terms - GDS [Global Distribution System] – Glossary – Fare Calculation – Computerized travel agency systems, Air Travel Terminology
Unit - II	Ticketing Introduction to Ticketing - Types of software in Ticketing - Manual Ticketing - Arrangements of the Tariff Manuals - Different times - IATA Terms and Definitions in Ticketing - Ticketing indicators - Ticketing of Published fares - Currency codes - Travel Geography - IATA TC areas
Unit - III	Taxes Terms of Taxes in Ticketing – Calculation of Taxes – Different types of taxes – Types of Trips and Journeys – Transit terms
Unit - IV	Fares Special Fares – Reservation – Modification – Cancellation – Discounts – BSP [Billing and Settlement Plan] – Stock control
Unit - V	GDS: Amadeus Sign on – Sign off – Encoding and Decoding – Working with Timetable, Schedule and Availability display – Elements to create PNR – PNR retrieval, Update and Modification – SSR-APIS – Queues – Fares and Pricing – Currency Conversion – Steps to issue the tickets – Billing Settlement Plan

LIST OF EXPERIMENTS

- 1. Practice in Sign on Sign off, the Software Logon Pad
- 2. Practice in Encoding and Decoding the City, Airport, Country and Currency
- 3. Practice in Working with Airline Timetable
- 4. Practice in Schedule and Availability display of the airlines
- 5. Practice in Elements to create PNR PNR retrieval
- 6. Practice in Update and Modification of the PNR
- 7. Practice in SSR APIS and Queues
- 8. Practice in Fares and Pricing to a booking
- 9. Practice in Currency Conversion
- 10. Practice in Steps to issue the tickets
- 11. Practice in Billing and Settlement Plan (BSP) of IATA

Total: 45 Hours

COURSE OUTCOMES:

On suc	ccessful completion of this course, the student will be able to;	Knowledge Level
CO1	To aware about the basic knowledge and travel terminologies in GDS training.	L2
CO2	To understand about the ticketing knowledge and its procedure	L2
CO3	To get knowledge about the calculations of taxes in air fare construction	L4
CO4	To grasp information in ticket modifications and cancellations especially to deal with BSP (Billing Settlement Plan) of IATA	L4
CO5	To get train about the AMADEUS software ticketing knowledge practically	L6

TEXT BOOKS:

- 1. Fundamentals of Air Transport Management, P.S. Senguttuvan (author), March 2016 (edition), Excel Books
- 2. Amadeus Air Ticketing Training Manual
- 3. Amadeus quick reference guide

REFERENCE BOOKS:

- 1. Cheap Airline Tickets, Vaclav Papousek (author), November 2015 (edition), Vaclav Papousek
- 2. Air Transportation: A Management Perspective, John Wensveen (author), May 2015 (edition), Routledge
- 3. The Future of Pricing: How Airline Ticket Pricing Has Inspired a Revolution, E. Boyed (author), November 2007 (edition), Palgrave Macmillan
- 4. Air Fares & Ticketing, Dr. Parul Mathur (author), 2020 (edition), Dr. Babashaeeb Ambedkar Open University.
- 5. Ticketing HandBook, IATA (author), 39th edition

WEBSITE LINKS:

- 1. https://amadeus.com/documents/en/pdfs/quick-ref-guide.pdf
- 2. https://www.academia.edu/9378579/AMADEUS_SYSTEM_TICKETING_MANUAL
- 3. https://www.academia.edu/9378579/AMADEUS_SYSTEM_TICKETING_MANUAL
- 4. https://baou.edu.in/assets/pdf/BBAATR 202 slm.pdf
- 5. https://www.travelready.org/PDF%20Files/IATA%20-%20Ticketing%20Handbook.pdf

Mapping Course Outcomes Vs Programme Outcomes

CO/	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
P												
О												
CO1	1	2	3	-	1	1	2	2	2	1	1	2
CO2	1	2	3	-	1	1	2	2	2	1	-	2
CO3	1	2	3	-	1	1	2	2	2	1	-	2
CO4	1	2	3	-	1	1	2	2	2	1	-	2
CO5	1	2	3	-	1	1	2	2	2	1	-	2
W.AV	1	2	3	ı	1	1	2	2	2	1	-	2

S –**Strong** (3), **M**- **Medium** (2), **L** - **Low** (1)

Mapping Course Outcomes Vs Programme Specific Outcomes

CO/PS O	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	-	2	-	2
CO2	1	-	2	-	2
CO3	1	-	2	-	2
CO4	1	-	2	-	2
CO5	1	-	2	-	2
W.AV	1	-	2	-	2

S –Strong (3), M- Medium (2), L - Low (1)