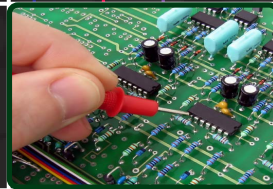


SANGAI INTERNATIONAL UNIVERSITY



B.sc. Honors (Aircraft Maintenance

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CHOICE BASED CREDIT SYSTEM

**B.Sc. Honors
(AIRCRAFT MAINTENANCE)**

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

Course	Credits	
	Theory+ Practical	Theory + Tutorial
I Core Course (14 papers)		
Core Course (14 Papers)	14X4= 56	14X5=70
Core Course Practical / Tutorial* (14 Papers)	14X2=28	14X1=14
II Elective Course (8 Papers)		
A.1 Discipline Specific Elective (4 Theory Papers)	4X4=16	4X5=20
A.2 Discipline Specific Elective Practical/Tutorial (4 Practical Papers)	4 X 2=8	4X1=4
B.1 Generic Elective/Interdisciplinary (4 Theory Papers)	4X4=16	4X5=20
B.2 Generic Elective Practical/ Tutorial (4 Practical Papers)	4 X 2=8	4X1=4
Optional Dissertation or project work in place of one Discipline Specific Elective paper (6 credits) in 6th Semestre		
III Ability Enchantment Courses		
1 Ability Enhancement Compulsory (2 Papers of 2 credit each)	2 X 4=8	2 X 4=8
2 Ability Enhancement Elective (Skill Based) (Minimum 2) (2 Papers of 2 credit each)	2 X 4=8	2 X 4=8
Total credit	148	148
Institute should evolve a system/ policy about ECA/ General Interest/ Hobby/ Sports/ NCC/ NSS/ related courses on its own. wherever there is a practical there will be no tutorial and vice-versa		

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

**Subject
Code**

Course

I Core Course

Core Papers (C): (Credit: 06 each) (1 period/week for tutorials or 4 periods/week for practical)

- C1 Aircraft structure and associated systems
- C2 Aerodynamics
- C3 Electrical fundamentals 1
- C4 Electronic fundamentals and digital techniques 1
- C5 Aircraft materials and hardware
- C6 Electrical fundamentals 2
- C7 Gas turbine engine
- C8 Electronic fundamentals and digital techniques 2
- C9 Aircraft maintenance practices
- C10 Aircraft systems 1
- C11 Workshop Practices
- C12 Aircraft system 2
- C13 Avionics
- C14 Ground handling, safety and support system

Core Course Practical / Tutorial* (14 Papers)

- CP1 Aircraft structure and associated systems
- CP2 Aerodynamics
- CP3 Electrical fundamentals 1

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

Subject Code	Course
CP4	Electronic fundamentals and digital techniques 1
CP5	Aircraft materials and hardware
CP6	Electrical fundamentals 2
CP7	Gas turbine engine
CP8	Electronic fundamentals and digital techniques 2
CP9	Aircraft maintenance practices
CP10	Aircraft systems 1
CP11	Workshop Practices
CP12	Aircraft system 2
CT13	Avionics
CP14	Ground handling, safety and support system

II Elective Course (8 Papers)

A.1 Discipline Specific Elective (4 Theory Papers)

Discipline Specific Elective (DSE) Papers: (Credit: 06 each) (4 papers to be selected)-

DSE1	Piston engines and Propellers
DSE2	Rotorcraft and rotorcraft autopilot
DSE3	Human factors
DSE4	Transducers and sensors
DSE5	Aviation legislation
DSE6	Flight Navigation and guidance

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

Subject Code	Course
DSE7	Topics recommended for dissertation / University recommended subjects
A.2	Discipline Specific Elective Practical/Tutorial (4 Practical Papers)
DSEP1	Piston engines and Propellers
DSEP2	Rotorcraft including rotorcraft autopilot
DSET3	Human factors
DSEP4	Transducers and sensors
DSEP5	Aviation legislation
DSEP6	Flight Navigation and guidance
	Dissertation - University recommended subjects : Optional Dissertation (obtain organisation approval) or project work (Perform aircraft maintenance in an Aircraft Maintenance Organisation) in place of one Discipline Specific Elective paper (6 credits) in 6th Semestre
DSED7.1	Approval of Maintenance Organization
DSED7.2	Approval of Continuing Airworthiness Management Organisation
DSED7.3	Aircraft Line Maintenance
DSED7.4	Aircraft Maintenance – Planning and Logistics
DSED7.5	Aircraft Stores

Generic Elective/Interdisciplinary (4 Theory Papers)

- GE1 Mathematics
- GE2 Physics

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

Subject Code	Course
GE3	Chemistry
GE4	Corrosion and NDI Techniques
GE5	Composites and fibers
GE6	Quality Management System
B.2	Generic Elective Practical/ Tutorial (4 Practical Papers)
GET1	Mathematics
GEP2	Physics
GEP3	Chemistry
GEP4	Corrosion and NDI Techniques
GEP5	Composites and fibers
GET6	Quality Management System
III	Ability Enchantment Courses
1	Ability Enhancement Compulsory (2 Papers of 2 credit each)
AECC1	Environmental Science
AECC2	English/MIL Communication
2	Ability Enhancement Elective* (Skill Based) (Minimum 2 Papers of 2 credit each)
AEEC1	Typical Aircraft Maintenance - Fixed Wing Heavy / Complex Aircraft
AEEC2	Typical Aircraft Maintenance - Fixed Wing Light / Composite Aircraft

Course Structure (Aircraft Maintenance)

Details of courses under B.Sc. (Honors)

Subject Code	Course
AEEC3	Typical Aircraft maintenance – Single Engine Helicopters
AEEC4	Typical Aircraft maintenance – Multi Engine Helicopters
AEEC5	Typical Aircraft Maintenance – Avionics (Fixed / Rotor Wing Complex Aircraft - Glass Cockpit) Typical Aircraft Maintenance – Avionics (Fixed / Rotor Wing Light Aircraft - Glass Cockpit)
AEEC6	Typical Aircraft Maintenance – Avionics (Fixed/ Rotor Wing Light Aircraft - Analog System)
AEEC7	Typical Piston Engine maintenance
AEEC8	Typical Gas Turbine Engine Maintenance
AEEC9	Aircraft (Hydraulic) Component Maintenance
AEEC10	Aircraft (landing gear) Component Maintenance
AEEC11	Aircraft (Pneumatic) Component Maintenance
AEEC12	Aircraft wheels and Breaks - Component Maintenance
AEEC13	Aircraft Electrical Component Maintenance
AEEc14	Aircraft Instruments Maintenance
AEEC15	Aircraft communication and navigation system component maintenance
AEEC16	Typical Aircraft Maintenance – Avionics (Fixed Wing Aircraft - Fly by wire)
AEEC17	Typical Aircraft Maintenance - Fixed Wing Heavy / Complex Aircraft

CHOICE BASED CREDIT SYSTEM
PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN
B.Sc HONORS (AIRCRAFT MAINTENANCE)

SEM.	CORE COURSE (14)	Ability Enhancement Compulsory Course (AECC) (2)	Ability Enhancement Elective Course (AEEC)	Elective: Discipline Specific DSE (4)	Elective: Generic (GE) (4)
I	Aircraft Structure & Associated Systems (4+4), Aerodynamics (4 + 4)	(English Communication /Environmental Science)			GE-1
II	Electrical Fundamentals1 (4+4) Electronic Fundamentals And Digital Techniques (4+4) 1	Environmental Science/ (English Communication)			GE-2
III	Aircraft Materials And Hardware(4+4) Electrical Fundamentals 2 (4+4) Gas turbine engine (4+4)			DSE-1	GE-3
IV	Electronic Fundamentals And Digital Techniques (4+4) Aircraft maintenance practices (4+4) Aircraft Systems 1 (4+4)			DSE-2	GE-4
V	Workshop Practices(4+4) Aircraft Systems 2(4+4)) Avionics (4+4)			DSE-3	
VI	Ground Handling Safety and Support System(4+4)		SEC 1 SEC 2	DSE-4	

SEMESTER	COURSE OPTED	COURSE NAME	Credits
I	Core course-1	Aircraft Structure & Associated Systems	4
	Core Course-1 Practical/Tutorial	Aircraft Structure Lab	2
	Core course-2	Aerodynamics	4
	Core Course-2 Practical/Tutorial	Aerodynamics Lab	2
	Generic Elective -1	GE-1	4/5
	Generic Elective -1 Practical/Tutorial	Lab	2/1
	Ability Enhancement 1	English communications	4
II	Core course-3	Electrical Fundamentals 1	4
	Core Course-3 Practical/Tutorial	Electrical 1 Lab	2
	Core course-4	Electronic Fundamentals & Digital Tech 1	4
	Core Course-4 Practical/Tutorial	Electronic Lab	2
	Generic Elective -2	GE-2	4/5
	Generic Elective -2 Practical/Tutorial	Lab	2/1
	Ability Enhancement 2 Compulsory	Environmental Science	4
III	Core course-5	Aircraft Materials And Hardware	4
	Core Course-5 Practical/Tutorial	Aircraft Materials Lab	2
	Core course-6	Electrical Fundamentals 2	4
	Core Course-6 Practical/Tutorial	Electrical 2 Lab	2
	Core course-7	Gas turbine engine	4
	Core Course-7 Practical/Tutorial	Gas turbine Engine Lab	2
	Discipline Specific Elective -1	DSE-1	4
	Generic Elective -3	GE-3	4/5
	Generic Elective -3 Practical/Tutorial	Lab	2/1
IV	Core course-8	Electronic Funda. & Digital Tech 2	
	Course-8 Practical/Tutorial	Electronic Lab	2
	Core course-9	Aircraft maintenance practices	4
	Course-9 Practical/Tutorial	Maintenance Lab	2
	Core course-10	Aircraft Systems 1	4
	Course- 10 Practical/Tutorial	Aircraft Systems 1 Lab	2
	Discipline Specific Elective -2	DSE -2	4
	Generic Elective -4	GE-4	4/5
	Generic Elective -4 Practical	Lab	2/1
V	Core course-11	Workshop practices	4
	Core Course-11 Practical/Tutorial	Workshop practices lab	2
	Core course-12	Aircraft System 2	4
	Core Course-13 Practical/Tutorial	Aircraft System 2 Lab	2
	Discipline Specific Elective -3	DSE-3	4
	Discipline Specific Elective -3	DSE-3 Lab	2
	Practical/Tutorial		

SEMESTER	COURSE OPTED	COURSE NAME	Credits
	Core course-13	Avionics	4
	Core Course- 13	Avionics Lab	2
	Practical/Tutorial		
VI	Core course-14	Ground handling and support system	4
	Core Course-14 Practical/Tutorial	Ground handling and support sys lab	2
	Discipline Specific Elective -4	DSE-4	4
	Discipline Specific Elective- 4	DSE-4 Lab	2
	Practical		
	Skill Enhancement Course -1	SEC-1	4
	Skill Enhancement Course -2	SEC-2	4
Total			148
Credits			