



INDIANA AEROSPACE UNIVERSITY

IAU Town Center Basak, Kagudoy Rd., Lapu-Lapu City
BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING
 (Revised Curriculum per CHED Memo Order No. 93, S 2017)
 Effective Academic Year 2024-2025

FIRST YEAR

1 st Semester						2 nd Semester					
Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req	Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
AE 100	Introduction to Aerospace Eng'g.	2	3	3	None	AE 120	Theory of Flight	3	0	3	None
DRAW 100	Engineering Drawing	0	6	2	None	AE 121	Civil Aviation Regulation	3	0	3	None
CHEM 100A	Chemistry for Engineers (lec)	3	0	3	None	AE 122	Human Factors and Aviation Safety	3	0	3	None
CHEM 100B	Chemistry for Engineers (lab)	0	3	1	None	AE 123	Engineering Data Analysis	3	0	3	None
PATHFIT 1	Movement Competency Training	2	0	2	None	PHYS 120 A	Physics for Engineers (lec)	3	0	3	None
NSTP 1	National Service Training Program 1	3	0	3	None	PHYS 120 B	Phys for Engineers (lab)	0	3	1	None
THEOLO GY 1	The Commandments & Morals	1	0	1	None	MATH 120	Differential Calculus	3	0	3	GEN ED 5
GEN ED 1	Contemporary World	3	0	3	None	CADD	Computer Aided Drafting and Design	0	6	2	None
GEN ED 2	Understanding the Self with Integration on Mental Health	3	0	3	None	PATHFIT 2	Exercise-Based Fitness Activities	2	0	2	PATHFIT 1
GEN ED 3	Readings in Philippine History with Integration on Indigenous People Studies	3	0	3	None	NSTP 2	National Service Training Program 2	3	0	3	NSTP 1
GEN ED 4	Purposive Communication	3	0	3	None	THEOLOGY 2	The Creed	<u>1</u>	<u>0</u>	<u>1</u>	
GEN ED 5	Mathematics in the Modern World	3	0	3	None	TOTAL		24	6	27	
TOTAL		26	9	30							

SUMMER

Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
GEN ED 6	Science, Technology and Society with Integration on Disaster Risk Reduction and Management	3	0	3	None
GEN ED 7	Ethics with Integration on Peace Education Studies	3	0	3	None
GEN ED 8	Art Appreciation	<u>3</u>	<u>0</u>	<u>3</u>	None
TOTAL		9	0	9	

SECOND YEAR

1 st Semester						2 nd Semester					
Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req	Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
AE 210	Computational Methods in Aerospace Engineering	0	6	2	GEN ED 5	AE 220	Basic Electronics	2	3	3	PHYS 120
AE 211	Basic Electrical Engineering	2	3	3	PHYS 120	AE 221	Statics of Rigid Bodies	3	0	3	PHYS 120
AE 212	Thermodynamics	3	0	3	PHYS 120	AE 222	Fundamentals of Aerodynamics	3	0	3	AE 212
AE 213	A/C & Spacecraft Systems and Instruments	3	0	3	AE 120	AE 223	Powerplant 1(Reciprocating Engines)	2	3	3	AE 212
AE 214	A/C Materials, Construction and Repairs	2	3	3	AE 100	AE 224	Principles of Autonomy and Decision Making	2	3	3	COMP
AE 215	A/C Avionics and Autopilot System	2	3	3	AE 100	AE 225	Intro to Space Sciences and Spacecraft Applications	2	3	3	AE 100
COMP	Basic Computer Programming	0	3	3	None	AE 226	Manufacturing with Advance Composites	2	3	3	CHEM 100
MATH 210	Integral Calculus	3	0	3	Math 120	MATH 220	Differential Equations	3	0	3	MATH 210
PATHFIT 3	Group Exercise	2	0	2	PATHFIT 2	PATHFIT 4	Outdoor and Adventure Activities	2	0	2	PATHFIT 3
THEOLO GY 3	The Sacraments	<u>1</u>	<u>0</u>	<u>1</u>		THEOLOGY 4	Bible Study	<u>1</u>	<u>0</u>	<u>1</u>	
TOTAL		21	15	24		TOTAL		22	15	27	

SUMMER

Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
GEN ED 9	Life and Works of Rizal	3	0	3	None
GEN ED 10 elec	Great Books	3	0	3	None
AE 227	Engineering Economics	3	0	3	None
TOTAL		9	0	9	

THIRD YEAR

1 st Semester						2 nd Semester					
Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req	Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
AE 310	Dynamics of Rigid Bodies	3	0	3	PHYS 120	AE 320	A/C Design 1	3	3	4	AE 312
AE 311	Mechanics of Deformable Bodies	3	0	3	PHYS 120	AE 321	A/C Structures 1	3	0	3	AE 221

AE 312	Subsonic Aerodynamics	3	0	3	AE222	AE 322	Subsonic Aerodynamics	3	0	3	AE 312
AE 313	Powerplant 2 (Gas Turbine Engines)	2	3	3	AE 212	AE 323	Aeronautical/Astronautical Laboratory 1	0	3	1	3 rd Yr Standing
AE 314	Rocket Propulsion	2	3	3	AE 212	AE 324	A/C Airworthiness Certification	2	0	2	AE 121
AE 315	Environmental Engineering	3	0	3	3 rd Yr Standing	AE 325	Basic Helicopter and Propeller Design	2	3	3	AE 312
AE 316	Engineering Management	2	0	2	3 rd yr Standing	AE 326	Airline Planning and Scheduling	2	0	2	3 rd Yr Standing
AE 317	Strategic Operations and Supply Chain Management	2	0	2	3 rd yr Standing	AE 327	A/C Structures Planning and Lay outing	2	3	3	CADD
AE 318	Fundamentals of Aerospace Medicine	3	0	3	None	AE 328	Celestial Mechanics	3	0	3	AE 225
RESEAR H	Thesis Writing	<u>3</u>	<u>0</u>	<u>3</u>	3 rd yr Standing	AE 329	Aerodrome Engineering and Management	<u>2</u>	<u>0</u>	<u>2</u>	3 rd Yr Standing
		26	6	28				22	12	26	

SUMMER					
Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
GEN ED 11 elec	Entrepreneurial Mind	3	0	3	None
GEN ED 12 elec	Gender and Society	<u>3</u>	<u>0</u>	<u>3</u>	None
TOTAL		6	0	6	

FOURTH YEAR						2 nd Semester					
1 st Semester											
Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req	Subcodes	Descriptive Titles	Lec	Lab	Units	Pre Req
AE 410	A/C Design 2	3	3	4	AE 320	OJT		<u>0</u>	<u>6</u>	<u>2</u>	
AE 411	A/C Structures 2	3	0	3	AE 321	TOTAL		0	6	2	
AE 412	Supersonic Aerodynamics	3	0	3	AE 322						
AE 413	Aeronautical/Astronautical Laboratory 2	0	3	1	AE 323						
AE 414	A/C Prototype Design And Construction	2	3	3	4 th Yr Standing						
AE 415	A/c Production, Maintenance, Planning and Control	3	0	3	4 th Yr Standing						
AE 416	Reliability Engineering	3	0	3	4 th Yr Standing						
AE 417	Unmanned Aerial System Design	0	6	2	4 th Yr Standing						
AE 418	Spacecraft Dynamics and Controls	3	0	3	AE 328						
AE 419	A/C Accident Investigation	2	0	2	AE 121						
ELECTIVE	Technical Elective	<u>3</u>	<u>0</u>	<u>3</u>	4 th Yr Standing						
TOTAL		25	15	30							

SUMMARY OF LAODS

YEAR LEVEL	SEMESTER	NO. OF UNITS	TOTAL
FIRST YEAR	Summer	0	57
	1 st	30	
	2 nd	27	
SECOND YEAR	Summer	9	62
	1 st	26	
	2 nd	27	
THIRD YEAR	Summer	9	63
	1 st	28	
	2 nd	26	
FOURTH YEAR	Summer	6	38
	1 st	30	
	2 nd	2	
TOTAL			220

TECHNICAL COURSES	
A. Mathematics	14
B. Natural/Physical Sciences	8
C. Basic Engineering Sciences	27
D. Allied Courses	9
E. Professional Courses	97
F. Electives	3
G. Aerospace Engineering Practice	2
NON-TECHNICAL COURSES	
A. General Education Courses	36
B. Mandated Courses	17
C. Institutionalized Courses	4
TOTAL	220

NOTES:

- Upon completion of the four-year course, the student is conferred the degree in Bachelor of Science in Aerospace Engineering (BSE) provided that he/she has undergone at least 420 hours of On-the-Job-Training.