

III Semester B. E. (Aeronautical Engineering)

	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 301T	Applied Mathematics -III	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 302T	Aero-Thermodynamics	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 302P	Aero-Thermodynamics	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 303T	Fluid Mechanics & Machinery	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 303P	Fluid Mechanics & Machinery	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 304T	Avionics –I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 305P	Computer Programming	-	1	2	2	-	-	-	-	-	25	25	50	25
BEAE 306T	Elements of Aeronautics	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 307T	Aerodynamics-I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 308T	Essence of Indian Traditional Knowledge	2	-	-	-	College assessment in Grades as O,A,B,C (Evaluation mentioned in the Syllabus of concern subject)								
Total		20	1	6	22	-	420	180	600	-	75	75	150	-
Semester Total		27			22	Marks 750								

IV Semester B. E. (Aeronautical Engineering)

Subject Code	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 401T	Manufacturing Process- I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 401P	Manufacturing Process Lab.	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 402T	Aircraft Structure- I	3	1	-	4	03	70	30	100	40	-	-	-	-
BEAE 402P	Aircraft Structure- I	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 403T	Aerodynamics-II	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 403P	Aerodynamics	-	-	2	1	-	-	-	-	-	25	25	50	25
-BEAE 404T	Propulsion- I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 405T	Aircraft Flight Mechanics	3	1	-	4	03	70	30	100	40	-	-	-	-
BEAE 406T	Professional Ethics	2			2	02	35	15	50	25				
BEAE 407P	Mini Project –I : (Internship/Case Study)	-	-	4	2	-	-	-	-	-	25	25	50	25
BEAE 408T	Environmental Studies	3	-	-	-	College assessment in Grades as O,A,B,C (Evaluation mentioned in the Syllabus of concern subject)								
Total		20	2	10	24	-	385	165	550	-	100	100	200	-
Semester Total		32			24	Marks 750								

V Semester B. E. (Aeronautical Engineering)

Subject Code	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 501T	Propulsion- II	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 501P	Propulsion- II Lab	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 502T	Aircraft System & Instrumentation	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 502P	Aircraft Systems & Instrumentation Lab	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 503T	Aircraft Structure- II	3	1	-	4	03	70	30	100	40				
BEAE 503P	Aircraft Structure- II	-	-	2	1	-	-	-			25	25	50	25
BEAE 504T(OE)	Open Elective-I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 505T(E)	Elective-I	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 506T	Constitution of India	2	-	-	-	College assessment in Grades as O,A,B,C,(Evaluation mentioned in the Syllabus of concern subject)								
Total		17	1	6	19	-	350	150	500	-	75	75	150	-
Semester Total		24			19	Marks 650								

Open Elective-I		Elective-I	
Course Code	Course Name	Course Code	Course Name
BEAE 504T(OE) - 1	Intellectual property rights	BEAE 505T(E) -1	Heat and Mass Transfer
BEAE 504T(OE) - 2	Gender Sensitization	BEAE 505T(E) -2	Smart materials and Introduction to composites
BEAE 504T(OE) - 3	Industrial Safety and Hazard Analysis	BEAE 505T(E) -3	Airworthiness and Certification
BEAE 504T(OE) - 4	Industrial Economics and Management	BEAE 505T(E) -4	Introduction to Helicopter Dynamics

VI Semester B. E. (Aeronautical Engineering)

Subject Code	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 601T	Aircraft Design	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 601P	Aircraft Design Laboratory	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 602T	Space Technology	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 603T	Open Elective-II	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 604T	Elective-II	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 605P	CAD/CAM Lab	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 606P	Non Destructive Inspection Lab	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 607T	Functional English	3	-	-	3	02	35	15	50	25	-	-	-	-
BEAE 608P	Mini Project –II : (Internship/Case Study)	-	-	6	3	-	-	-	-	-	50	50	100	50
BEAE 609P	Sports / Yoga / NSS/NCC			3	0	College assessment in Grades as O,A,B,C,(Evaluation mentioned in the Syllabus of concern subject)								
Total		15	0	15	21		315	135	450		125	125	250	
Semester Total		30			21	Marks 700								

Open Elective-II		Elective-II	
Course Code	Course Name	Course Code	Course Name
BEAE 603T(OE)-1	Design of Machine Elements	BEAE604T(E)-1	Aircraft Mechanisms Analysis and Synthesis
BEAE 603T(OE)-2	Finance And Accounting	BEAE604T(E)-2	Flight Dynamics
BEAE 603T(OE)-3	Renewable Energy Sources	BEAE604T(E)-3	Principles of combustion
		BEAE604T(E)-4	Aerodynamic Design of compressors and turbine

VII Semester B. E. (Aeronautical Engineering)

Subject Code	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 701T	Air Transportation and Management	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 702T(OE)	Open Elective III	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 703T(OE)	Open Elective- IV	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 704T(E)	Elective III	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 704P(E)	Elective III	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 705P(E)	Project Seminar	-	-	2	1	-	-	-	-	-	25	25	50	25
BEAE 705P	Project Work Phase- I	-	-	6	3	-	-	-	-	-	75	75	150	75
BEAE 706T	Human Resource & Organizational Behavior	2	-	-	-	College assessment in Grades as O,A,B,C,(Evaluation mentioned in the Syllabus of concern subject)								
Total		14	0	10	17	-	280	120	400	-	125	125	250	-
Semester Total		24			17	Marks 650								

Open Elective-III		Open Elective-IV	
Course Code	Course Name	Course Code	Course Name
BEAE 702T(OE)-1	Introduction to multi-disciplinary design optimization	BEAE 703T(OE) - 1	Reliability centered maintenance
BEAE 702T(OE)-2	Relativity, Cosmology, and the Early Universe	BEAE 703T(OE) -2	Industrial Engineering and Management
BEAE 702T(OE)-3	Theory of Vibrations	BEAE 703T(OE) -3	Fatigue and fracture Mechanics

Elective - III	
Course Code	Course Name
BEAE 704T(E)-1	Avionics-II
BEAE 704T(E)-2	Computational Fluid dynamics
BEAE 704T(E)-3	Finite Element Method
BEAE 704T(E)-4	Aircraft Maintenance and Overhaul

Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur
Faculty of Engineering & Technology
Course and Examination Scheme of Bachelor of Engineering (Aeronautical Engineering)
VIII Semester B. E. (Aeronautical Engineering)

Subject Code	Subject	Teaching Scheme				Examination Scheme								
		Hours per week			No. of Credits	Theory					Practical			
		L	T	P		Duration of Paper (Hrs)	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks	Max Marks University Assessment	Max Marks College Assessment	Total Marks	Min. Passing Marks
BEAE 801T(OE)	Open Elective-V	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 802T(E)	Elective IV	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 803T(E)	Elective V	3	-	-	3	03	70	30	100	40	-	-	-	-
BEAE 804P	Project Work Phase- II	-	-	12	6	-	-	-	-	-	100	100	200	100
Total		9	-	12	15	-	210	90	300	-	100	100	200	
Semester Total		21			15	Marks 500								

Open Elective-V	
Course Code	Course Name
BEAE 801T(OE) -1	Introduction to Cryogenics
BEAE 801T(OE)-2	Experimental Stress Analysis
BEAE 801T(OE) -3	Bio-Fluid Dynamics
BEAE 801T(OE) -4	Theory of Plates and Shells

Elective - IV		Elective-V	
Course Code	Course Name	Course Code	Course Name
BEAE 802T(E)-1	UAV Systems design	BEAE 803T(E) -1	Aero Engine Maintenance
BEAE 802T (E)-2	Wind Tunnel techniques	BEAE 803T(E) -2	Theory of Aero elasticity
BEAE 802T (E)-3	Boundary Layer Theory	BEAE 803T(E) -3	Industrial Aerodynamics
BEAE 802T (E)-4	Hypersonic Aerodynamics	BEAE 803T(E) -4	Aviation Logistics and Supply Chain Management