

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018-19
M.Tech Aeronautical Engineering
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

I SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination			Credits	
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks		Total Marks
1	PCC	18MAE11	Applied Mathematics	04	--	03	40	60	100	4
2	PCC	18MAE12	Aerodynamics	04	--	03	40	60	100	4
3	PCC	18MAE13	Introduction to Aerospace Vehicles and Systems	04	--	03	40	60	100	4
4	PCC	18MAE14	Computational Fluid Dynamics	04	--	03	40	60	100	4
5	PCC	18MAE15	Finite Element Methods	04	--	03	40	60	100	4
6	PCC	18MAEL16	Aerodynamics Lab	-	04	03	40	60	100	2
7	PCC	18RMI17	Research Methodology and IPR	02	--	03	40	60	100	2
TOTAL				22	04	21	280	420	700	24

Note: PCC: Professional Core Course

Internship: All the students shall have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

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II SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination			Credits	
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks		Total Marks
1	PCC	18MAE21	Aircraft Performance and Flight Mechanics	04	--	03	40	60	100	4
2	PCC	18MAE22	Aerospace Propulsion	04	--	03	40	60	100	4
3	PCC	18MAE23	Airframe Structures and Structural Design	04	--	03	40	60	100	4
4	PEC	18MAE24X	Professional Elective 1	04	--	03	40	60	100	4
5	PEC	18MAE25X	Professional Elective 2	04	--	03	40	60	100	4
6	PCC	18MAEL26	Propulsion lab	--	04	03	40	60	100	2
7	PCC	18MAE27	Technical Seminar	--	02	--	100	--	100	2
TOTAL				20	06	18	340	360	700	24

Note: PCC: Professional Core Course, PEC: Professional Elective Course,

Professional Elective 1		Professional Elective 2	
Course Code under 18MAE24X	Course title	Course Code under 18MAE25X	Course title
18MAE241	Avionics	18MAE251	Space Mechanics
18MAE242	Helicopter Dynamics	18MAE252	Unmanned Aerial Vehicles
18MAE243	Artificial Intelligence and Robotics	18MAE253	Flight Testing

Note:

1. Technical Seminar: CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide in any and a senior faculty of the department. Participation in seminar by all postgraduate students of the same and other semesters of the programme shall be mandatory.

The CIE marks awarded for Technical Seminar, shall be based on the evaluation of Seminar Report, Presentation skill and Question and Answer session in the ratio 50:25:25.

2. Internship: All the students shall have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

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III SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/Field work/Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18MAE31	Aircraft Flight Dynamics and Automatic Flight Control	04	--	03	40	60	100	4
2	PEC	18MAE32X	Professional Elective 3	04	--	03	40	60	100	4
3	PEC	18MAE33X	Professional Elective 4	04	--	03	40	60	100	4
4	Project	18MAE34	Evaluation of Project phase -1	--	02	--	100	--	100	2
5	Internship	18MAEI35	Internship	(Completed during the intervening vacation of I and II semesters and /or II and III semesters.)		03	40	60	100	6
TOTAL				12	02	12	260	240	500	20

Note: PCC: Professional Core Course, PEC: Professional Elective Course

Professional Elective 3		Professional Elective 4	
Course Code under 18MAE32X	Course title	Course Code under 18MAE33X	Course title
18MAE321	Flight Vehicle Design	18MAE331	Fatigue and Fracture Mechanics
18MAE322	Theory of Aeroelasticity	18MAE332	Aero Engine Testing and Performance Evaluation
18MAE323	Hypersonic Aerodynamics	18MAE333	Theory of Combustion

Note:

1. Project Phase-1: Students in consultation with the guide/co-guide if any, shall pursue literature survey and complete the preliminary requirements of selected Project work. Each student shall prepare relevant introductory project document, and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide and a senior faculty of the department. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE (University examination) shall be as per the University norms.

2. Internship: Those, who have not pursued /completed the internship, shall be declared as failed and have to complete during subsequent University examinations after satisfy the internship requirements.

Internship SEE (University examination) shall be as per the University norms.

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IV SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks Viva voce	Total Marks	
1	Project	18MAE41	Project work phase -2	--	04	03	40	60	100	20
TOTAL				--	04	03	40	60	100	20

Note:

1. Project Phase-2:

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any and a Senior faculty of the department. The CIE marks awarded for project work phase -2, shall be based on the evaluation of Project Report subjected to plagiarism check, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.