

**I.K. Gujral**  
**Punjab Technical University**

**Study Scheme of**  
**B.Tech.**  
**(Aeronautical Engineering)**

**Batch 2018**

**Board of Studies**  
**Aeronautical/Aerospace Engineering**



**Third Semester****Contact hour : 33**

Course Code	Course Title	Load allocation			Marks distribution		Total Marks	Credits
		L	T	P	Int.	Ext.		
<b>BTANE301-18</b>	Mathematics - III	4	1	0	40	60	100	5
<b>BTANE302-18</b>	Fluid Mechanics	3	1	0	40	60	100	4
<b>BTANE303-18</b>	Introduction To Aeronautics	3	0	0	40	60	100	3
<b>BTANE304-18</b>	Thermodynamics	4	1	0	40	60	100	5
<b>BTANE305-18</b>	Strength of Materials	3	1	0	40	60	100	4
<b>BTANE306-18</b>	Strength of Materials Lab	0	0	2	30	20	50	1
<b>BTANE307-18</b>	Fluid Mechanics Lab	0	0	2	30	20	50	1
<b>BTANE308-18</b>	Thermodynamics Lab.	0	0	4	30	20	50	2
<b>BTIT309-18</b>	<b>Institutional Training (after 2<sup>nd</sup> Sem)</b>	0	0	4	60	40	100	2
	<b>TOTAL</b>	<b>17</b>	<b>4</b>	<b>12</b>	<b>350</b>	<b>400</b>	<b>750</b>	<b>27</b>

Course Code	Course Title	Load allocation			Marks distribution		Total Marks	Credits
		L	T	P	Int	Ext		
<b>BTANE401-18</b>	Aerodynamics-I	3	1	0	40	60	100	4
<b>BTANE402-18</b>	Aircraft Structures - I	4	1	0	40	60	100	5
<b>BTANE403-18</b>	Aircraft materials and Processes	3	1	0	40	60	100	4
<b>BTANE404-18</b>	Aircraft Propulsion - I	3	1	0	40	60	100	4
<b>BTANE-XXX-18</b>	Elective-I	3	1	0	40	60	100	4
<b>BTANE409-18</b>	Environmental studies	3	0	0	40	60	100	3
<b>BTANE410-18</b>	Flight Control and simulation Lab	0	0	2	30	20	50	1
<b>BTANE411-18</b>	Aircraft Structures Lab	0	0	2	30	20	50	1
<b>BTANE412-18</b>	Aircraft Materials & Processes Lab	0	0	2	30	20	50	1
	General Fitness				100		100	S/US
	<b>TOTAL</b>	<b>19</b>	<b>5</b>	<b>6</b>	<b>430</b>	<b>420</b>	<b>850</b>	<b>27</b>



Course Code	Course Title	Load allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
<b>BTANE501-18</b>	Aerodynamics - II	3	1	0	40	60	100	4
<b>BTANE502-18</b>	Aircraft Structures - II	4	0	0	40	60	100	4
<b>BTANE503-18</b>	Aircraft Propulsion - II	3	1	0	40	60	100	4
<b>BTANEXXX-18</b>	Inter-Disciplinary Elective -I	4	0	0	40	60	100	4
<b>BTANEXXX-18</b>	Elective-II	3	1	0	40	60	100	4
<b>BTANE508-18</b>	Aerodynamics Lab	0	0	2	30	20	50	1
<b>BTANE509-18</b>	Vibration and Aeroelasticity Lab	0	0	2	30	20	50	1
<b>BTANE510-18</b>	Propulsion Lab	0	0	2	30	20	50	1
<b>BTIT511-18</b>	<b>Industrial Training</b> <i>(after 4<sup>th</sup>Sem)</i>				60	40	100	2
	<b>TOTAL</b>	<b>17</b>	<b>3</b>	<b>6</b>	<b>350</b>	<b>400</b>	<b>750</b>	<b>25</b>

Course Code	Course Title	Load allocation			Marks distribution		Total Marks	Credits
		L	T	P	Internal	External		
<b>BTANE601-18</b>	Aircraft Performance	3	1	0	40	60	100	4
<b>BTANE602-18</b>	Aircraft systems and instrumentation	3	0	0	40	60	100	3
<b>BTANEXXX-18</b>	Inter-Disciplinary Elective -II	4	0	0	40	60	100	4
<b>BTANE603-18</b>	Innovative product or process development	1	0	4	40	60	100	3
<b>BTANEXXX-18</b>	Elective-III	3	1	0	40	60	100	4
<b>BTANE608-18</b>	Aeromodelling and Design Lab	0	0	2	30	20	50	1
<b>BTANE609-18</b>	Aircraft systems and Instrumentation Lab	0	0	2	30	20	50	1
<b>BTANE610-18</b>	Computational Engineering Lab	0	0	2	30	20	50	1
	General fitness				100		100	S/US
	<b>TOTAL</b>	<b>14</b>	<b>2</b>	<b>10</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>21</b>

**Seventh Semester**

Contact Hours: 26

Course Code	Course Title	Load allocation			Marks distribution		Total Marks	Credits
		L	T	P	Internal	External		
<b>BTANE701-18</b>	Computational Fluid Dynamics	3	1	0	40	60	100	4
<b>BTANE702-18</b>	Airplane Design	4	0	0	40	60	100	4
<b>BTANE703-18</b>	Aircraft stability and control	3	1	0	40	60	100	4
<b>BTANEXXX-18</b>	Elective-IV	4	0	0	40	60	100	4
<b>BTANE708-18</b>	Computational Fluid Dynamics Lab	0	0	2	30	20	50	1
<b>BTANE709-18</b>	Project	0	0	6	30	20	50	6
<b>BTANE710-18</b>	Seminar	0	0	2	30	20	50	1
	General Fitness				100		100	S/US
	<b>TOTAL</b>	<b>14</b>	<b>2</b>	<b>10</b>	<b>350</b>	<b>400</b>	<b>650</b>	<b>24</b>

**Eighth Semester**

Course Code	Course Title	Marks distribution		Total Marks	Credits
		Internal	External		
<b>BTANE801-18</b>	Software Training	150	100	250	4
<b>BTANE802-18</b>	Industrial/Institutional Training for skill Enhancing	300	200	500	8
	<b>TOTAL</b>	<b>450</b>	<b>300</b>	<b>750</b>	<b>12</b>

### Elective-I

Course code	Course name
BTANE405-18	Aircraft Maintenance and Airworthiness
BTANE406-18	Wind Turbines
BTANE407-18	Theory of Machines
BTANE408-18	Numerical Methods

### Elective-II

Course code	Course name
BTANE504-18	Avionics
BTANE505-18	Composite materials
BTANE506-18	Viscous flow Theory
BTANE507-18	Rocket Propulsion

### Elective-III

Course code	Course name
BTANE604-18	Wind Tunnel technique
BTANE605-18	Space Dynamics
BTANE606-18	Experimental Aerodynamics
BTANE607-18	Helicopter Dynamics

### Elective-IV

Course code	Course name
BTANE704-18	Aircraft Maintenance and Air Transportation
BTANE705-18	Missile Technology
BTANE706-18	Air Transportation and Operations
BTANE707-18	Automatic Flight Control

### Inter-Disciplinary Elective-I

- Subjects offered by other departments

### Inter-Disciplinary Elective-II

- Subjects offered by other departments



**Inter-disciplinary Elective-I (offered by Aeronautical Engg. deptt for other departments )**

BTANE512-18	Introduction to Aeronautical Engineering
BTANE513-18	Aircraft Structures

**Inter-disciplinary Elective-I (offered by Aeronautical Engg. deptt for other departments )**

BTANE611-18	Elements of Aerodynamics
BTANE612-18	Aircraft Performance
BTANE613-18	Aircraft Propulsion