

SWAMIVIVEKANANDUNIVERSITY, SAGAR(M.P.)



SCHEME

For

Bachelor of Technology

B.Tech in Aerospace Engineering

SubjectCode:BTASE

DepartmentofAerospace Engineering

FacultyofEngineering

DurationofCourse : 4Years

ExaminationMode : Semester

ExaminationSystem : Grading

SwamiVivekanandUniversity, Sagar, Madhya Pradesh



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 3rd Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | Distribution of Marks | | | | | | | | | | Grand Total (k=e+j) |
|--------------|--------------|----------------------------|----------------|----------|----------|-----------|-----------------------|---------|------------|------------------------|-----------------|-----------|---------|------------|-----------------|-----------------|---------------------|
| | | | L | T | P | C | Theory | | MS T (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | |
| | | | | | | | Max (a) | Min (b) | | | | Max (f) | Min (g) | Quiz (h) | Assignments (i) | | |
| 1 | BTAS-301 | Mathematics-III | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 2 | BTAS-302 | Introduction to Aerospace | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 3 | BTAS-303 | Fluid Mechanics | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 4 | BTAS-304 | Engineering Thermodynamics | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 5 | BTAS-305 | Strength of Materials | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 6 | BTAS-306 | Machine Design | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 7 | BTAS-307 | Fluid Mechanics Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 8 | BTAS-308 | Strength of Material Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 7 | BTAS-309 | Seminar | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| 8 | BTAS-310 | Self-Study | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| Total | | | 18 | 6 | 8 | 32 | 420 | | 120 | 60 | 600 | 60 | | 120 | 20 | 200 | 800 |



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 4th Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | Distribution of Marks | | | | | | | | | | Grand Total (k=e+j) |
|-------|--------------|--|----------------|---|---|----|-----------------------|---------|----------|------------------------|-----------------|-----------|---------|-----------|-----------------|-----------------|---------------------|
| | | | L | T | P | C | Theory | | MS T (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | |
| | | | | | | | Max (a) | Min (b) | | | | Max (f) | Min (g) | Quiz (h) | Assignments (i) | | |
| 1 | BTAS-401 | Numerical Analysis | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 2 | BTAS-402 | Aerodynamics-I | 3 | 1 | - | 6 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 3 | BTAS-403 | Aircraft Structure-I | 3 | 1 | - | 6 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 4 | BTAS-404 | Aircraft Propulsion-I | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 5 | BTAS-405 | Heat Transfer - Aerospace Applications | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 6 | BTAS-406 | Theory of Machine | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 7 | BTAS-407 | Aerodynamics Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 8 | BTAS-408 | Aircraft Structure Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 9 | BTAS-409 | Seminar-I | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| 10 | BTAS-410 | Self-Study | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| Total | | | 18 | 6 | 8 | 32 | 420 | | 120 | 60 | 600 | 60 | | 120 | 20 | 200 | 800 |



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 5th Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | Distribution of Marks | | | | | | | | | | Grand Total (k=e+j) |
|-------|--------------|----------------------------------|----------------|---|---|----|-----------------------|----------|----------|------------------------|-----------------|-----------|----------|-----------|------------------|-----------------|---------------------|
| | | | L | T | P | C | Theory | | MS T (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | |
| | | | | | | | Ma x (a) | Mi n (b) | | | | Ma x (f) | Mi n (g) | Qui z (h) | Assign ments (i) | | |
| 1 | BTAS-501 | Aircraft Structure-II | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 2 | BTAS-502 | Aircraft Propulsion-II | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 3 | BTAS-503 | Aerodynamics-II | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 4 | BTAS-504 | Gas Dynamics | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 5 | BTAS-505 | Flight Dynamics-I | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 6 | BTAS-506 | Introduction to Space Technology | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 7 | BTAS-507 | Propulsion Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 8 | BTAS-508 | Aero Computing Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 9 | BTAS-509 | Seminar | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| 10 | BTAS-510 | Self-Study | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| Total | | | 18 | 6 | 8 | 32 | 420 | | 120 | 60 | 600 | 60 | | 120 | 20 | 200 | 800 |



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 6th Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | | | | Distribution of Marks | | | | | | | Grand Total (k=e+j) |
|-------|--------------|-----------------------------------|----------------|---|---|----|---------|---------|---------|------------------------|-----------------|-----------|---------|-----------|-----------------|-----------------|---------------------|
| | | | L | T | P | C | Theory | | MST (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | |
| | | | | | | | Max (a) | Min (b) | | | | Max (f) | Min (g) | Quiz (h) | Assignments (i) | | |
| 1 | BTAS-601 | Experimental Stress Analysis | 3 | 1 | | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 2 | BTAS-602 | Control Engineering | 3 | 1 | | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 3 | BTAS-603 | Flight Dynamics-II | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 4 | BTAS-604 | Avionics | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 5 | BTAS-605 | Helicopter Engineering | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 6 | BTAS-606 | Aircraft System & Instrumentation | 3 | 1 | | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 7 | BTAS-607 | Experimental Stress Analysis Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 8 | BTAS-608 | Aircraft System Lab | | | 2 | 2 | | | | | | 30 | 9 | 10 | 10 | 50 | 50 |
| 9 | BTAS-609 | Aircraft Design Lab.-I | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| 10 | BTAS-610 | Minor project | | | 2 | 2 | | | | | | | | 50 | - | 50 | 50 |
| Total | | | 18 | 6 | 8 | 32 | 420 | | 120 | 60 | 600 | 60 | | 120 | 20 | 200 | 800 |



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 7th Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | Distribution of Marks | | | | | | | | | | Grand Total (k=e+j) |
|-------|--------------|-----------------------------------|----------------|---|---|----|-----------------------|---------|----------|------------------------|-----------------|-----------|---------|-----------|-----------------|-----------------|---------------------|
| | | | L | T | P | C | Theory | | MS T (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | |
| | | | | | | | Max (a) | Min (b) | | | | Max (f) | Min (g) | Quiz (h) | Assignments (i) | | |
| 1 | BTAS-701 | Elements of Rocket Propulsion | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 2 | BTAS-702 | Guidance & Navigation | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 3 | BTAS-703 | Vibration and Structural Dynamics | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 4 | BTAS-704 | Aircraft safety and management | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 5 | BTAS-705 | Mechanics of Composite Materials | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | 100 |
| 6 | | Departmental Elective-I | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | - | | 100 |
| 7 | BTAS-709 | CAD/CAM Lab. | | | 2 | 2 | | | | | | | | 50 | | 50 | 50 |
| 8 | BTAS-710 | Aircraft Design Lab.-II | | | 2 | 2 | | | | | | | | 50 | | 50 | 50 |
| 9 | BTAS-711 | Training | | | | 4 | | | | | | | | 100 | - | 100 | 100 |
| Total | | | 18 | 6 | 8 | 32 | 420 | | 120 | 60 | 600 | 60 | | 120 | 20 | 200 | 800 |

Departmental Elective-I (Select any one)

706-MechatronicsDesign

707-Experimental Aerodynamics

708-Computational Fluid Dynamics



Swami Vivekanand University, Sagar (M.P)

Scheme of Examination



Faculty of Engineering
Department of Aerospace Engineering
Course Code: BTAS

Scheme of Course: B.Tech in Aerospace Engineering
Semester: 8th Sem

| Sr No | Subject Code | Subject | Lecture Scheme | | | | Distribution of Marks | | | | | | | | | | Grand Total (k=e+j) | |
|-------|--------------|------------------------------|----------------|---|---|----|-----------------------|---------|---------|------------------------|-----------------|-----------|---------|-----------|-----------------|-----------------|---------------------|-----|
| | | | L | T | P | C | Theory | | MST (c) | Quiz & Assignments (d) | Total (e=a+c+d) | Practical | | Team Work | | Total (j=f+h+i) | | |
| | | | | | | | Max (a) | Min (b) | | | | Max (f) | Min (g) | Quiz (h) | Assignments (i) | | | |
| 1 | BTAS-801 | Guidance of missiles | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | | 100 |
| 2 | BTAS-802 | Fundamental of Combustion | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | | 100 |
| 3 | | Departmental Elective-II | 3 | 1 | - | 4 | 70 | 22 | 20 | 10 | 100 | | | | | | | 100 |
| 4 | BTAS-806 | Modelling and Simulation Lab | | | | 2 | 2 | | | | | 30 | 9 | 10 | 10 | 50 | | 50 |
| 5 | BTAS-807 | Industrial visit | | | | | 4 | | | | | 50 | | 50 | | | 100 | 100 |
| 6 | BTAS-808 | Major Project | | | | 12 | | | | | | 200 | | 50 | 50 | 300 | | 300 |
| 7 | BTAS-809 | Seminar | | | | 2 | 2 | | | | | | | 50 | | 50 | | 50 |
| Total | | | 9 | 3 | 4 | 32 | 210 | | 60 | 30 | 300 | 280 | | 160 | 60 | 500 | | 800 |

Departmental Elective-II (Select any one)

803-Aero Elasticity

804- Finite Element Methods

805- Fundamental of Turbulence