



BRAINWARE UNIVERSITY
SCHOOL OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Bachelor of Technology in Computer Science & Engineering –2026

SEMESTER – I

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|---|--------------|----------|----------|-------------------|------------|-------------|-------------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BHS00001 | English for Technical Communication | 3 | 0 | 0 | 40 | 60 | 100 | 3 | HSMC |
| 2 | BHS00004 | Understanding Harmony and Ethical Human Conduct | 2 | 0 | 0 | 40 | 60 | 100 | 2 | HSMC |
| 3 | BBS00010 | Engineering Chemistry | 3 | 1 | 0 | 40 | 60 | 100 | 4 | BSC |
| 4 | BBS00005 | Calculus | 3 | 0 | 0 | 40 | 60 | 100 | 3 | BSC |
| 5 | BES00006 | Programming for Problem Solving | 3 | 1 | 0 | 40 | 60 | 100 | 4 | ESC |
| 6 | BBS09020 | Engineering Chemistry Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | BSC |
| 7 | BES09012 | Programming for Problem Solving Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | ESC |
| 8 | BES09015 | Workshop and Manufacturing Practices | 0 | 0 | 3 | 40 | 60 | 100 | 1.5 | ESC |
| 9 | BHS00010 | Design Thinking | 1 | 0 | 0 | 20 | 30 | 50 | 1 | ESC |
| 10 | BAU00002 | Environmental Sciences* | 2* | 0 | 0 | 0 | 0 | 0 | 0 | AUC* |
| TOTAL | | | 15+2* | 2 | 7 | 340 | 510 | 850 | 20.5 | |

SEMESTER – II

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|--|--------------|----------|-----------|-------------------|------------|-------------|-------------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BHS07008 | Effective Communication and Soft Skills | 2 | 0 | 2 | 40 | 60 | 100 | 3 | HSMC |
| 2 | BBS00015 | Semiconductor Physics | 3 | 1 | 0 | 40 | 60 | 100 | 4 | BSC |
| 3 | BBS00002 | Algebra and Vector Calculus | 3 | 0 | 0 | 40 | 60 | 100 | 3 | BSC |
| 4 | BES00002 | Basic Electrical and Electronics Engineering | 3 | 1 | 0 | 40 | 60 | 100 | 4 | ESC |
| 5 | BES07010 | Data Structure and Algorithms | 3 | 0 | 2 | 40 | 60 | 100 | 4 | ESC |
| 6 | BBS09022 | Semiconductor Physics Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | BSC |
| 7 | BES09008 | Basic Electrical and Electronics Engineering Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | ESC |
| 8 | BES09014 | Engineering Graphics and Design Lab | 0 | 0 | 3 | 40 | 60 | 100 | 1.5 | ESC |
| 9 | BAU00004 | Yoga and Sports* | 2* | 0 | 0 | 0 | 0 | 0 | 0 | AUC* |
| TOTAL | | | 14+2* | 2 | 11 | 320 | 480 | 800 | 21.5 | |
| 10 | UGPC0001 | Foundations of Professional Communication | 0 | 0 | 0 | 100 | 0 | 100 | 0 | GPC |



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SEMESTER – III

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|--|--------------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BBS00014 | Probability and Statistics | 3 | 0 | 0 | 40 | 60 | 100 | 3 | BSC |
| 2 | BES00007 | Python Programming | 3 | 1 | 0 | 40 | 60 | 100 | 4 | ESC |
| 3 | BTS30101 | Computer Organization and Architecture | 3 | 1 | 0 | 40 | 60 | 100 | 4 | PCC |
| 4 | BTS30102 | Database Management Systems | 3 | 1 | 0 | 40 | 60 | 100 | 4 | PCC |
| 5 | BES09013 | Python Programming Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | ESC |
| 6 | BTS39103 | Computer Organization and Architecture Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 7 | BTS39104 | Database Management Systems Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 8 | BTS38101 | Mini Project - I | 0 | 0 | 0 | 40 | 60 | 100 | 2 | PROJ |
| 9 | BAU00001 | Constitution of India* | 2* | 0 | 0 | 0 | 0 | 0 | 0 | AUC* |
| TOTAL | | | 12+2* | 3 | 6 | 320 | 480 | 800 | 20 | |

#MOOCs to earn additional credits for optional Honours/Minor Degree

SEMESTER – IV

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|---|-----------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BES09019 | Practical Computing and AI Tools for Engineers | 0 | 0 | 2 | 40 | 60 | 100 | 1 | ESC |
| 2 | BBS00008 | Discrete Mathematics | 3 | 0 | 0 | 40 | 60 | 100 | 3 | BSC |
| 3 | BTS40105 | Operating Systems | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 4 | BTS40106 | Design and Analysis of Algorithms | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 5 | BTS40107 | Object Oriented Programming | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 6 | BTS40108 | Formal Language and Automata Theory | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 7 | BTS49109 | Operating Systems Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 8 | BTS49110 | Design and Analysis of Algorithms Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 9 | BTS49111 | Object Oriented Programming Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 10 | BTS48102 | Mini Project - II | 0 | 0 | 0 | 40 | 60 | 100 | 2 | PROJ |
| TOTAL | | | 15 | 0 | 8 | 400 | 600 | 1000 | 21 | |
| 11 | UGPC0002 | Workplace Communication and Professional Skills | 0 | 0 | 0 | 100 | 0 | 100 | 0 | GPC |

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SEMESTER – V

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|--|-----------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BTS50112 | Computer Networks | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 2 | BTS50113 | Distributed System | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 3 | BTS50114 | Compiler Design | 3 | 1 | 0 | 40 | 60 | 100 | 4 | PCC |
| 4 | BHS00009 | General Proficiency and Workplace Communication | 2 | 0 | 0 | 40 | 60 | 100 | 2 | HSMC |
| 5 | BTS57201 | Professional Elective Course - I | 2 | 0 | 2 | 40 | 60 | 100 | 3 | PEC |
| 6 | BTS59116 | Computer Networks Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 7 | BTS59117 | Distributed System Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 8 | BTS59118 | Compiler Design Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 9 | BTS58103 | Mini Project – III | 0 | 0 | 0 | 40 | 60 | 100 | 2 | PROJ |
| TOTAL | | | 13 | 1 | 8 | 360 | 540 | 900 | 20 | |
| 10 | UGPC0003 | Advanced Professional Communication and Employability Skills | 0 | 0 | 0 | 100 | 0 | 100 | 0 | GPC |

#MOOCs to earn additional credits for optional Honours/Minor Degree

Professional Elective Course – I

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|----------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS57201 | A. Artificial Intelligence | 2 | 0 | 2 | 3 | 4 |
| | B. Image Processing | 2 | 0 | 2 | 3 | 4 |
| | C. Cloud Computing | 2 | 0 | 2 | 3 | 4 |



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SEMESTER – VI

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--|-------------|--------------------------------------|-----------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BTS60119 | Machine Learning | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 2 | BTS60120 | Data Mining and Data Warehousing | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 3 | BTS60121 | Internet of Things | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 4 | BTS67202 | Professional Elective Course – II | 2 | 0 | 2 | 40 | 60 | 100 | 3 | PEC |
| 5 | BTS60301 | Open Elective Course – I | 3 | 0 | 0 | 40 | 60 | 100 | 3 | OEC |
| 6 | BTS69122 | Machine Learning Lab | 0 | 0 | 3 | 40 | 60 | 100 | 1.5 | PCC |
| 7 | BTS69123 | Data Mining and Data Warehousing Lab | 0 | 0 | 3 | 40 | 60 | 100 | 1.5 | PCC |
| 8 | BTS68104 | Mini Project – IV | 0 | 0 | 0 | 40 | 60 | 100 | 2 | PROJ |
| TOTAL | | | 14 | 0 | 8 | 320 | 480 | 800 | 20 | |
| <i>#MOOCs to earn additional credits for optional Honours/Minor Degree</i> | | | | | | | | | | |

Professional Elective Course – II

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|---------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS67202 | A. Big Data and Analytics | 2 | 0 | 2 | 3 | 4 |
| | B. Soft Computing | 2 | 0 | 2 | 3 | 4 |
| | C. Deep Learning | 2 | 0 | 2 | 3 | 4 |

Open Elective Course – I

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|--------------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS60301 | A. Software Project Management | 3 | 0 | 0 | 3 | 3 |
| | B. Organisational Behaviour | 3 | 0 | 0 | 3 | 3 |
| | C. MOOC* | 3 | 0 | 0 | 3 | 3 |

*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended Learning and MOOCs Policy)



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SEMESTER – VII

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--|-------------|---|-----------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BTS70124 | Software Engineering | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 2 | BTS70125 | System Software and Administration | 3 | 0 | 0 | 40 | 60 | 100 | 3 | PCC |
| 3 | BTS77203 | Professional Elective Course – III | 2 | 0 | 2 | 40 | 60 | 100 | 3 | PEC |
| 4 | BTS70302 | Open Elective Course – II | 3 | 0 | 0 | 40 | 60 | 100 | 3 | OEC |
| 5 | BTS70303 | Open Elective Course – III | 3 | 0 | 0 | 40 | 60 | 100 | 3 | OEC |
| 6 | BTS79126 | Software Engineering Tools and Techniques Lab | 0 | 0 | 2 | 40 | 60 | 100 | 1 | PCC |
| 7 | BTS78105 | Internship | 0 | 0 | 0 | 40 | 60 | 100 | 2 | PROJ |
| 8 | BTS78106 | Minor Project | 0 | 0 | 0 | 40 | 60 | 100 | 4 | PROJ |
| TOTAL | | | 14 | 0 | 4 | 320 | 480 | 800 | 22 | |
| <i>#MOOCs to earn additional credits for optional Honours/Minor Degree</i> | | | | | | | | | | |

Professional Elective Course – III

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|-------------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS77203 | A. Data and Internet Security | 2 | 0 | 2 | 3 | 4 |
| | B. Quantum Computing | 2 | 0 | 2 | 3 | 4 |
| | C. Pattern Recognition | 2 | 0 | 2 | 3 | 4 |

Open Elective Course – II

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|----------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS70302 | A. Entrepreneurship Basics | 3 | 0 | 0 | 3 | 3 |
| | B. Cyber law and Ethics | 3 | 0 | 0 | 3 | 3 |
| | C. MOOC* | 3 | 0 | 0 | 3 | 3 |

Open Elective Course – III

| Course Code | Course Name | Hours per week | | | Credits | Credit Hours |
|-------------|--------------------------|----------------|---|---|---------|--------------|
| | | L | T | P | | |
| BTS70303 | A. Financial Management | 3 | 0 | 0 | 3 | 3 |
| | B. Engineering Economics | 3 | 0 | 0 | 3 | 3 |
| | C. MOOC* | 3 | 0 | 0 | 3 | 3 |

*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended Learning and MOOC Policy)



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SEMESTER – VIII

| Sl. No. | Course Code | Course Name | L | T | P | Evaluation Scheme | | Total Marks | Credits | Course Type |
|--------------|-------------|-------------------|----------|----------|----------|-------------------|------------|-------------|-----------|-------------|
| | | | | | | CIA | TEE | | | |
| 1 | BTS88107 | Major Project | 0 | 0 | 0 | 40 | 60 | 100 | 16 | PROJ |
| 2 | BTS88108 | Grand Viva – Voce | 0 | 0 | 0 | 0 | 100 | 100 | 4 | PROJ |
| TOTAL | | | 0 | 0 | 0 | 40 | 160 | 200 | 20 | |