

**BS PACKAGING
TECHNOLOGY
(PROGRAMME SCHEME)**

SEMESTER 1

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--|-----------|----------|----------|-----------|----------|
| BSPT 101 (DSC) | Applied Mathematics in Packaging | 3 | 1 | 0 | 4 | I |
| BSPT 102 (DSC) | Applied Physics and Chemistry in Packaging | 3 | 0 | 0 | 3 | I |
| BSPT 103 (DSC) | Applied Biosciences | 2 | 1 | 0 | 3 | I |
| BSPT 104 (DSC) | Elements of Packaging | 4 | 0 | 0 | 4 | I |
| BSPT 105 (VAC) | Engineering Drawing and Graphic Design | 0 | 0 | 2 | 2 | I |
| BSPT 106 (SEC) | Principles of Computer Science and Data Analysis | 3 | 1 | 0 | 4 | I |
| BSPT 107 (VAC) | Human Value And Ethics | 3 | 0 | 0 | 3 | I |
| BSPT 108 (DSC) | Applied Physics and Chemistry in Packaging Lab | 0 | 0 | 1 | 1 | I |
| TOTAL | | 18 | 3 | 3 | 24 | |

SEMESTER 2

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|---|-----------|----------|----------|-----------|----------|
| BSPT 201 (DSC) | Principles of Packaging | 3 | 0 | 0 | 3 | II |
| BSPT 202 (DSC) | Introduction to Packaging Materials | 3 | 1 | 0 | 4 | II |
| BSPT 203 (AEC) | Model and Prototype Development | 3 | 0 | 0 | 3 | II |
| BSPT 204 (MSC) | Environmental Science | 3 | 1 | 0 | 4 | II |
| BSPT 205 (VAC) | Creative Writing | 2 | 0 | 0 | 2 | II |
| BSPT 206 (VAC)(NUES*) | Seminar | 0 | 0 | 2 | 2 | II |
| BSPT 207 (DSC) | Packaging Materials Lab I | 0 | 0 | 2 | 2 | II |
| BSPT 200 (VAC) | <i>(Vocational Course on Designing for Certificate programme)</i> | 0 | 0 | 4 | 4 | II |
| TOTAL | | 14 | 2 | 8 | 20 | |

*NUES = Non University Examination System

Note 1 : +4 Credits for Certificate have been excluded in total count

SEMESTER 3

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--|-----------|----------|----------|-----------|----------|
| BSPT 301 (DSC) | Paper Packaging Technology | 3 | 0 | 0 | 3 | III |
| BSPT 302 (DSC) | Glass & Metal Packaging Technology | 3 | 0 | 0 | 3 | III |
| BSPT 303 (DSC) | Packaging for Pharmaceutical & Cosmetic products | 3 | 1 | 0 | 4 | III |
| BSPT 304 (DSC) | Printing Technology | 3 | 0 | 0 | 3 | III |
| BSPT 305 (DSC) | Packaging Design & Ergonomics | 3 | 0 | 0 | 3 | III |
| BSPT 306 (DSC) | Printing Ink Technology | 3 | 1 | 0 | 4 | III |
| BSPT 307 (DSC) | Paper, Glass & Metal Testing Lab | 0 | 0 | 2 | 2 | III |
| BSPT 308 (DSC) | Printing & Packaging Design Lab | 0 | 0 | 2 | 2 | III |
| TOTAL | | 18 | 2 | 4 | 24 | |

SEMESTER 4

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--|-----------|----------|----------|-----------|----------|
| BSPT 401 (DSC) | Polymer based Packaging Technology | 3 | 0 | 0 | 3 | IV |
| BSPT 402 (DSC) | Analytical Tools and Techniques in Packaging | 3 | 0 | 0 | 3 | IV |
| BSPT 403 (DSC) | Characterization of Packaging Materials | 3 | 0 | 0 | 3 | IV |
| BSPT 404 (MDC/EL) | Colour science | 2 | 1 | 0 | 3 | IV |
| BSPT 405 (DSC) | Food Packaging Technology | 3 | 0 | 0 | 3 | IV |
| BSPT 406 (SEC/EL) | 3D visualization and 3D printing | 2 | 1 | 0 | 3 | IV |
| BSPT 407 (DSC) | Design Project / Seminar | 0 | 0 | 2 | 2 | IV |
| BSPT 400 (VAC)* | (Vocational Course on Designing for Certificate programme) | 0 | 0 | 4 | 4 | IV |
| BSPT 408 (DSC) | Packaging Material Lab II | 0 | 0 | 3 | 3 | |
| BSPT 409 (DSC) | Food Packaging Lab | 0 | 0 | 1 | 1 | |
| TOTAL | | 14 | 1 | 6 | 21 | |

Note 1 : +4 Credits for Diploma have been excluded in total count

Note 2 : Students will select only 1 out of 2 elective subjects offered. 3 credits (for each elective) have been added in the total count

SEMESTER 5

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|---|-----------|----------|----------|-----------|----------|
| BSPT 501 (DSC) | Agri. Packaging & Supply chain management | 3 | 1 | 0 | 4 | V |
| BSPT 502 (MSC) | Industrial packaging | 4 | 0 | 0 | 4 | V |
| BSPT 503 (MDC/EL) | Packaging of Medical Devices | 2 | 1 | 0 | 3 | V |
| BSPT 504 (MSC/EL) | Packaging of Handicrafts and Handlooms | 2 | 1 | 0 | 3 | V |
| BSPT 505 (AEC) | Packaging laws, standards and regulations | 3 | 0 | 0 | 3 | V |
| BSPT 506 (DSC) | Post- consumer Packaging Waste Management | 3 | 0 | 0 | 3 | V |
| | TOTAL | 15 | 2 | 0 | 17 | |

Note : Students will select only 1 out of 2 elective subjects offered. 3 credits (for each elective) have been added in the total count

SEMESTER 6

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|---|-----------|----------|----------|-----------|----------|
| BSPT 601 (SEC) | Operation management | 3 | 1 | 0 | 4 | VI |
| BSPT 602 (DSC) | Logistics and supply chain management | 3 | 1 | 0 | 4 | VI |
| BSPT 603 (MSC) | Packaging machinery and automation | 3 | 1 | 0 | 4 | VI |
| BSPT 604 (DSC) | Packaging economics & Cost Optimization | 2 | 1 | 0 | 3 | VI |
| BSPT 605 (DSC/EL) | Quality management and six sigma | 3 | 0 | 0 | 3 | VI |
| BSPT 606 (DSC/EL) | IPR and entrepreneurship in packaging | 3 | 0 | 0 | 3 | VI |
| BSPT 607 (DSC) (NUES*) | Industrial Visit - I | 0 | 0 | 1 | 1 | VI |
| BSPT 608 (VAC) | Research Project - I | 0 | 0 | 4 | 4 | VI |
| | TOTAL | 14 | 4 | 5 | 23 | |

*NUES = Non University Examination System

Note : Students will select only 1 out of 2 elective subjects offered. 3 credits (for each elective) have been added in the total count

SEMESTER 7

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--|-----------|----------|-----------|-----------|----------|
| BSPT 701 (MSC) | Smart and intelligent packaging | 3 | 1 | 0 | 4 | VII |
| BSPT 702 (DSC) | Branding and packaging design | 3 | 1 | 0 | 4 | VII |
| BSPT 703 (DSC/EL) | Advanced Trends in Packaging Technology | 2 | 1 | 0 | 3 | VII |
| BSPT 704 (DSC/EL) | Innovation and sustainability in packaging | 2 | 1 | 0 | 3 | VII |
| BSPT 705 (SEC) | Packaging for Ancillary Materials | 2 | 0 | 0 | 2 | VII |
| BSPT 706 (DSC) | Research Project - II | 0 | 0 | 4 | 4 | VII |
| BSPT 707 (DSC) (NUES*) | Industrial Visit - II | 0 | 0 | 1 | 1 | VII |
| BSPT 708 (VAC) | Packaging Design Project | 0 | 0 | 4 | 4 | VII |
| BSPT 709 (DSC) | Packaging for Ancillary Materials Lab | 0 | 0 | 1 | 1 | VII |
| TOTAL | | 10 | 3 | 10 | 23 | |

*NUES = Non University Examination System

Note : Students will select only 1 out of 2 elective subjects offered. 3 credits (for each elective) have been added in the total count

SEMESTER 8

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--------------------------------------|----------|----------|-----------|-----------|----------|
| BSPT 801 (DSC) | Project Dissertation / Major Project | 0 | 0 | 14 | 14 | VIII |
| TOTAL | | 0 | 0 | 14 | 14 | |

**MS PACKAGING
TECHNOLOGY
(PROGRAMME SCHEME)**

SEMESTER 1

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|--|-----------|----------|----------|-----------|----------|
| MSPT-611 | Principles of Packaging Science and Technology | 3 | 0 | 0 | 3 | I |
| MSPT-612 | Chemistry of Packaging Materials | 3 | 0 | 0 | 3 | I |
| MSPT-613 | Laboratory I- Packaging Materials Lab | 0 | 0 | 2 | 2 | I |
| MSPT-614 | Tooling and Moulding Design | 2 | 1 | 0 | 3 | I |
| MSPT-615 | Engineering Drawing | 3 | 0 | 0 | 3 | I |
| MSPT-616 | Laboratory II- Engineering Drawing Lab | 0 | 0 | 2 | 2 | I |
| MSPT-617 | Logistics & Supply Chain Management | 2 | 0 | 0 | 2 | I |
| TOTAL | | 13 | 1 | 4 | 18 | |

SEMESTER 2

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|---|-----------|----------|----------|-----------|----------|
| MSPT-621 | Bio-based Packaging Material and Technology | 3 | 0 | 0 | 3 | II |
| MSPT-622 | Testing and Characterization of Packaging Materials | 2 | 0 | 0 | 2 | II |
| MSPT-623 | Laboratory III- Testing and Characterization of Packaging Materials Lab | 0 | 0 | 2 | 2 | II |
| MSPT-624 | Nanomaterials and Nanocomposites | 3 | 0 | 0 | 3 | II |
| MSPT-625 | Advanced Colour Science and Printing Technology | 2 | 1 | 0 | 3 | II |
| MSPT-626 | Packaging Processes and Machineries | 3 | 0 | 0 | 3 | II |
| MSPT-627 | Laboratory IV- Packaging Processes and Machineries Lab | 0 | 0 | 1 | 1 | II |
| MSPT-628 | Research Methodology and IPR | 3 | 0 | 0 | 3 | II |
| MSPT-629 (EC) | Advances in Pharmaceutical Packaging Technology | 3 | 0 | 0 | 3 | II |
| MSPT-630 (EC) | Advances in Cosmetic Packaging Technology | 3 | 0 | 0 | 3 | II |
| TOTAL | | 19 | 1 | 3 | 23 | |

* EC - Elective Course - Student will select only 1 Elective Course out of 2 offered

SEMESTER 3

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|---|-----------|----------|----------|-----------|----------|
| MSPT-631 | Packaging Process Engineering | 2 | 1 | 0 | 3 | III |
| MSPT-632 | Advanced Product Packaging | 2 | 0 | 0 | 2 | III |
| MSPT-633 | Laboratory V- Advanced Product Packaging and Design Lab | 0 | 0 | 1 | 1 | III |
| MSPT-634 | Sustainable Packaging Technology | 3 | 0 | 0 | 3 | III |
| MSPT-635 | Entrepreneurship & Financial Management | 2 | 0 | 0 | 2 | III |
| MSPT-636 | Smart and Functional Packaging | 2 | 0 | 0 | 2 | III |
| MSPT-637 | Packaging Waste Recycling | 2 | 0 | 0 | 2 | III |
| MSPT-638 | Laboratory VI- Packaging Waste Recycling Lab | 0 | 0 | 1 | 1 | III |
| MSPT-639 | Major Project I | 0 | 0 | 4 | 4 | III |
| MSPT-640 (EC) | Advances in Food Packaging Technology | 3 | 0 | 0 | 3 | III |
| MSPT-641 (EC) | Advances in Chemical & Export Packaging Technology | 3 | 0 | 0 | 3 | III |
| TOTAL | | 16 | 1 | 6 | 23 | |

* **EC** - Elective Course - Student will select only 1 Elective Course out of 2 offered

SEMESTER 4

| SUB.CODE/ NOMENCLATURE | SUBJECTS | L | T | P | C | SEMESTER |
|---------------------------|------------------|----------|----------|-----------|-----------|----------|
| MSPT-642 | Major Project II | 0 | 0 | 16 | 16 | IV |
| TOTAL | | 0 | 0 | 16 | 16 | |