BS WITH 2ND MAJOR IN FUTURE FOODS TRACK 2 (NTU Based) Suggested study plan for AY2025-26 Intake (BSFTFD)

| Single Degree with Second Major Programmes | | | | | | | | | |
|--|-------------------------|--------------------------------|-------------|---|-------------------------|---------------------------------------|----------------------------------|-----------|--|
| Programm e | Year of Stud y | Number of Academic Units (AUs) | | | | | | | |
| | | Major Requirement s | | Interdisciplinary Collaborative Core | | | Broadenin | | |
| | | Cor e | Major PE | Commo n Core | Professiona l Series | Care , Serv e & Lear n | g & Deepening Electives | Tota l | |
| Biological | 1 | 27 | | 8 | | | | 35 | |
| Sciences | 2 | 12 | 3 | 6 | 5 | 3 | 12 | 41 | |
| with Second | 3 | | 9 | | 11 | | 6 | 26 | |
| Major in | 4 | | 21 [6] | | | | 9 | 30 | |
| Future Foods (Track 2- Local) | Total | 39 | 33 [6] | 14 | 16 | 3 | 27 | 132 | |

[] AU of courses that could be used to fulfill both MPE requirement and 2^{nd} major in FTFD requirements concurrently.

| | Sem 1 | Type Course Code | | Course Title | AU |
|-----------|----------|----------------------|----------------|---|----|
| | | Core | BS1012 | Foundations of Chemistry I | |
| | | Core | BS1016 | Physiology | |
| Year | | Core | BS1008 | Biostatistics | |
| 1 | | ICC (Common Core) | CC0001 | Inquiry & Communication in an Interdisciplinary World | 2 |
| | | ICC (Common Core) | CC0003 | Ethics and Civics in a Multi-Cultural World | 2 |
| | | ICC (Common Core) | CC0015 | Health & Wellbeing | 2 |
| | | | | Total | 15 |
| | | Туре | Course Code | Course Title | AU |
| | | Core | BS1013 | Foundations of Chemistry II | 3 |
| Year | Com | Core | BS1005 | Biochemistry I | |
| rear 1 | Sem 2 | Core | BS1006 | Principles of Genetics | |
| 1 | | Core | BS1007 | Molecular and Cell Biology I | 3 |
| | | Core | BS1009 | Introduction to Computational Thinking | 3 |
| | | Core | BS1100 | Molecular and Cell Biology Techniques Level 1 | 3 |

| | | ICC (Common Core) | | Career Design & Workplace Readiness in the V.U.C.A World | |
|-----------|----------|---------------------------|-----------------|--|----|
| | | Corej | | Total | |
| | | Туре | Course Code | Course Title | AU |
| Vaar | | Core | BS2002 | Microbiology | 3 |
| | | Core | BS2003 | Biochemistry II | 3 |
| | Sem 1 | Core | BS2028 | Instrumentation for the Analysis of Biological Systems | 3 |
| Year 2 | | ICC (Professional Series) | BS0004 | Introduction to Data Science | 3 |
| | | ICC (Common Core) | CC0007 | Science & Technology for Humanity | 3 |
| | | BDE | CM5101 | Food Chemistry & Nutrition | 3 |
| | | BDE | NTU Elective | Second Major Elective 1 | |
| | | | | Total | 21 |
| | | Туре | Course Code | Course Title | AU |
| | | Core BS2004 | | Molecular & Cell Biology II | 3 |
| | Sem 2 | ICC (Common CC0006 | | Sustainability: Society, Economy and Environment | 3 |
| Year | | ICC (Professional Series) | | Communication Across the Sciences | 2 |
| 2 | | MPE BSxxxx | | MPE 1 | 3 |
| | | BDE | CH5220 | Food Standard – Food Safety and Risk Assessment | 3 |
| | | BDE | NTU Elective | Second Major Elective 2 | 3 |
| | | ICC (Care, Serve, Learn) | ТВС | Care, Serve, Learn (CSL) | 3 |
| | | | | Total | 20 |
| | | Туре | Course Code | Course Title | AU |
| | | MPE | BSxxxx | MPE 2 | 3 |
| | | MPE | BSxxxx | MPE 3 | 3 |
| Year | Sem | MPE BSxxxx | | MPE 4 | 3 |
| 3 | 1 | BDE | NTU Elective | Second Major Elective 3 | 3 |
| | | BDE | NTU Elective | Free BDE or Second Major Elective | 3 |
| | | ICC (Professional Series) | MLxxxx | Profession Preparation Course | 1 |
| | | | | Total | 16 |
| V | C | | 6 | | |
| Year 3 | Sem 2 | Туре | Code Code | Course Title | AU |

| | | ICC (Professional Series) | BS4227 | Professional Internship | 10 |
|-----------|----------|---------------------------|---|---|-----------|
| | | | | Total | 10 |
| | Sem 1 | Туре | Course Code | Course Title | AU |
| | | MPE | BS4021 | **Bi-Semestral FYP | 12 (6) |
| Year 4 | | MPE | BS4010 Synthetic Biology (MPE 5/ Second Major ^ Elective 4) | | 3 |
| | | MPE | BS4015^ | Plant Biotechnology (MPE 6/ Second Major Elective 5) | |
| | | BDE | CH5210 | Food Process Technologies and New Production Systems | 3 |
| | | | | Total | 15 |
| | | | | | |
| | Sem 2 | Туре | Course Code | Course Title | AU |
| Year | | MPE | BS4021 | **Bi-Semestral FYP | 12 (6) |
| 4 | | MPE | BSxxxx | MPE 7 | 3 |
| | | BDE CH5211 | | Data Analytics in Food Systems | |
| | | BDE | CH5222 | Future Foods – Introduction to Advanced Meat Alternatives | 3 |
| | | | | Total | 15 |
| | | | | Total AU | 132 |

 $^{^{\}wedge}$ Double Counted to fulfil both MPE and 2^{nd} major in FTFD requirements. For WUR Track, students could only opt for either BS4010 or BS4015.

^{**} BS4021 Bi-Semestral FYP will be carried out across 2 semesters (year 4 semester 1 and 2). Students will be credited a total of 12AU under MPE course type upon completion in year 4 sem 2. (6)AU is an indication that the Bi-Semestral FYP spreads across 2 semesters only.