

YEAR 3 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|---|-----------|----|--------------------------|
| SC2207 | Introduction to Databases | Core | 3 | SC2001 (co-requisite) |
| SC2008 | Computer Network | Core | 3 | SC2000 & SC1004 |
| SC3000 | Artificial Intelligence | MPE-1 | 3 | SC1007 & SC1015 & SC2000 |
| SC3xxx | Major Prescribe Elective (Choose within SC3xxx) | MPE-1 | 3 | Year 3 Standing |
| HE2003 | Econometrics I | Core-Econ | 3 | MH1820 |
| HE3002 | Macroeconomics III | Core-Econ | 3 | HE2002 |
| | | | 18 | |

YEAR 3 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|--------------------------|
| SC2079 | Multidisciplinary Design Project | Core | 4 | Year 3 Standing |
| SC3010 | Computing Security | MPE-1 | 3 | SC2107 |
| HE3003 | Econometrics II | Core-Econ | 3 | HE2003 |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HW0288 | Engineering Communication | F-Core | 2 | CC0001 & Year 3 standing |
| | | | 18 | |

Year 3 Total AU**36****YEAR 4 SEMESTER 1**

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-----------------|
| SC3xxx | Major Prescribe Elective (Choose within SC3xxx) | MPE-1 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| | | | 15 | |

YEAR 4 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|-------------------------|--------|----|-----------------|
| SC3079 | Professional Internship | F-Core | 10 | Year 3 Standing |
| | | | 10 | |

Year 4 Total AU**25****YEAR 5 SEMESTER 1**

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-----------------|
| SC4079 | Final Year Project (Part 1) | Core | 4 | Year 4 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| | | | 16 | |

YEAR 5 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-------------------------|
| SC4079 | Final Year Project (Part 2) | Core | 4 | Year 4 Standing |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| | Broadening and Deepening Elective | BDE | 3 | Refer to Class Schedule |
| | | | 19 | |

Year 5 Total AU**35**

AY2022-23 AND LATER COHORTS CURRICULUM FOR COMPUTER SCIENCE AND ECONOMICS

DOUBLE DEGREE PROGRAMME

PA option : 10-WEEK Professional Attachment

| SUMMARY OF ACADEMIC UNIT REQUIREMENT | | | | | | | | |
|--------------------------------------|------|------|-----|------|--------|--------|-----|----------|
| Year of Study | Core | | MPE | | ICC | | BDE | Total AU |
| | CE | ECON | CE | ECON | C-Core | F-Core | | |
| 1 | 19 | 9 | 0 | 0 | 9 | 3 | 0 | 40 |
| 2 | 21 | 6 | 3 | 0 | 8 | 0 | 0 | 38 |
| 3 | 19 | 9 | 0 | 0 | 0 | 7 | 0 | 35 |
| 4 | 3 | 0 | 12 | 12 | 0 | 0 | 3 | 30 |
| 5 | 8 | 0 | 0 | 18 | 0 | 0 | 5 | 31 |
| Total | 70 | 24 | 15 | 30 | 17 | 10 | 8 | 174 |

Recommended Course Schedule

YEAR 1 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|-----------|----|---------------|
| SC1003 | Introduction to Computational Thinking & Programming | Core | 3 | Nil |
| SC1013 | Physics For Computing | Core | 2 | Nil |
| MH1810 | Mathematics I | Core | 3 | Nil |
| EG1001 | Engineers in Society | Core | 2 | Nil |
| HE1001 | Microeconomics I | Core-Econ | 3 | Nil |
| HE1002 | Macroeconomics I | Core-Econ | 3 | Nil |
| CC0003 | Ethics & Civics in a Multicultural World | C-Core | 2 | Nil |
| CC0005 | Healthy Living & Wellbeing | C-Core | 3 | Nil |
| | | | 21 | |

YEAR 1 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|-----------|----|---------------|
| SC1005 | Digital Logic | Core | 3 | Nil |
| SC1007 | Data Structures & Algorithms | Core | 3 | SC1003 |
| MH1812 | Discrete Mathematics | Core | 3 | Nil |
| SC1015 | Introduction to Data Science & Artificial Intelligence | F-Core | 3 | SC1003 |
| HE2001 | Microeconomics II | Core-Econ | 3 | HE1001 |
| CC0001 | Inquiry & Communication in an Interdisciplinary World | C-Core | 2 | Nil |
| CC0002 | Navigating the Digital World | C-Core | 2 | Nil |
| | | | 19 | |

Year 1 Total AU

40

YEAR 2 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|---|-----------|----|--------------------------------|
| SC1004 | Linear Algebra for Computing | Core | 3 | SC1003 (co-requisite) & MH1810 |
| SC1006 | Computer Organisation & Architecture | Core | 3 | SC1005 (co-requisite) |
| SC2000 | Probability & Statistics for Computing | Core | 3 | MH1810 |
| SC2002 | Object Oriented Design & Programming | Core | 3 | SC1003 OR SC1007 |
| HE3001 | Microeconomics III | Core-Econ | 3 | HE2001 |
| CC0006 | Sustainability: Society, Economy & Environment | C-Core | 3 | Nil |
| ML0004 | Career & Innovative Enterprise for the Future World | C-Core | 2 | Nil |
| | | | 20 | |

YEAR 2 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|-----------|----|-----------------------|
| SC2001 | Algorithm Design & Analysis | Core | 3 | SC1007 & MH1812 |
| SC2005 | Operating Systems | Core | 3 | SC1006 & SC1007 |
| SC2006 | Software Engineering | Core | 3 | SC2002 (co-requisite) |
| HE2002 | Macroeconomics II | Core-Econ | 3 | HE1002 |
| MH1820 | Introduction to Statistical Theory and Methods | MPE-C | 3 | Nil |
| CC0007 | Science & Technology for Humanity | C-Core | 3 | Nil |
| | | | 18 | |

Year 2 Total AU

38

YEAR 3 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|---------------------------|-----------|----|--------------------------|
| SC2207 | Introduction to Databases | Core | 3 | SC2001 (co-requisite) |
| SC2008 | Computer Network | Core | 3 | SC2000 & SC1004 |
| SC3000 | Artificial Intelligence | MPE-1 | 3 | SC1007 & SC1015 & SC2000 |
| HE2003 | Econometrics I | Core-Econ | 3 | MH1820 |
| HE3002 | Macroeconomics III | Core-Econ | 3 | HE2002 |
| | | | 15 | |

YEAR 3 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|---|-----------|----|--------------------------|
| SC2079 | Multidisciplinary Design Project | Core | 4 | Year 3 Standing |
| SC3010 | Computing Security | MPE-1 | 3 | SC2107 |
| SC3xxx | Major Prescribe Elective (Choose within SC3xxx) | MPE-1 | 3 | Year 3 Standing |
| HE3003 | Econometrics II | Core-Econ | 3 | HE2003 |
| HW0288 | Engineering Communication | F-Core | 2 | CC0001 & Year 3 standing |
| | | | 15 | |

YEAR 3 SPECIAL SEMESTER

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|-------------------------|--------|----|-----------------|
| SC3026 | Professional Attachment | F-Core | 5 | Year 3 Standing |
| | | | 5 | |

Year 3 Total AU**35****YEAR 4 SEMESTER 1**

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-----------------|
| SC3xxx | Major Prescribe Elective (Choose within SC3xxx) | MPE-1 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| | | | 15 | |

YEAR 4 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-------------------------|
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| SC4xxx | Major Prescribe Elective (Choose within SC4xxx) | MPE-2 | 3 | Year 3 Standing |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| | Broadening and Deepening Elective | BDE | 3 | Refer to Class Schedule |
| | | | 15 | |

Year 4 Total AU**30****YEAR 5 SEMESTER 1**

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-----------------|
| SC4079 | Final Year Project (Part 1) | Core | 4 | Year 4 Standing |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| | | | 14 | |

YEAR 5 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-requisite |
|-------------|--|------------|----|-------------------------|
| SC4079 | Final Year Project (Part 2) | Core | 4 | Year 4 Standing |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |
| | Broadening and Deepening Elective | BDE | 3 | Refer to Class Schedule |
| | Broadening and Deepening Elective | BDE | 2 | Refer to Class Schedule |
| | | | 17 | |

Year 5 Total AU**31**

| MPE Structure of Computer Science (U21 and after) | | | |
|---|--------------|-----------|----------------------------|
| Course Code | Type | AU | Remarks |
| SC3000 | MPE-1 | 3 | MPE (Compulsory) |
| SC3010 | MPE-1 | 3 | MPE (Compulsory) |
| SC3xxx | MPE-1 | 3 | MPE (Choose within SC3xxx) |
| SC3xxx | MPE-1 | 3 | MPE (Choose within SC3xxx) |
| SC4xxx | MPE-2 | 3 | MPE (Choose within SC4xxx) |
| SC4xxx | MPE-2 | 3 | MPE (Choose within SC4xxx) |
| SC4xxx | MPE-2 | 3 | MPE (Choose within SC4xxx) |
| SC4xxx | MPE-2 | 3 | MPE (Choose within SC4xxx) |
| | Total | 24 | |

Please refer the CSC MPE Courses and Specialization on SCSE website.

| MPE Structure of Economics (U21 and after) | | | |
|--|--------------|-----------|-----------------------|
| Course Code | Type | AU | Remarks |
| MH1820 | MPE-C | 3 | Compulsory MPE |
| Level 3xxx (6 courses) | MEP-Econ 3 | 18 | Choose with in HE3xxx |
| Level 4xxx (3 courses) | MEP-Econ 4 | 12 | Choose with in HE4xxx |
| | Total | 33 | |

| ECONOMICS Course Listing | | | | |
|--------------------------|--|------------|----|---------------|
| Course Code | Course Title | Type | AU | Pre-requisite |
| HE1001 | Microeconomics I | Core-Econ | 3 | Nil |
| HE1002 | Macroeconomics I | Core-Econ | 3 | Nil |
| HE2001 | Microeconomics II | Core-Econ | 3 | HE1001 |
| HE2002 | Macroeconomics II | Core-Econ | 3 | HE1002 |
| HE2003 | Econometrics I | Core-Econ | 3 | MH1820 |
| HE3001 | Microeconomics III | Core-Econ | 3 | HE2001 |
| HE3002 | Macroeconomics III | Core-Econ | 3 | HE2002 |
| HE3003 | Econometrics II | Core-Econ | 3 | HE2003 |
| MH1820 | Introduction to Statistical Theory and Methods | MPE-C | 3 | Nil |
| HE3xxx | Econs Prescribe Elective (Choose with in HE3xxx) | MEP-Econ 3 | 3 | - |
| HE4xxx | Econs Prescribe Elective (Choose with in HE4xxx) | MEP-Econ 4 | 4 | - |