

**AY2025-2026 AND LATER COHORTS**

**Curriculum for Bachelor of Computing (Computer Science)**

**Exempted Polytechnic Students (PI and PA option)**

**PI option : 20-WEEK Professional Internship**

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

| Year of Study | Core      | MPE       | ICC           |                     |                     | BDE      | Total AU   |
|---------------|-----------|-----------|---------------|---------------------|---------------------|----------|------------|
|               |           |           | Common - Core | Professional Series | Care, Serve & Learn |          |            |
| 1             | 25        | 0         | 8             | 3                   | 0                   | 0        | 36         |
| 2             | 22        | 9         | 6             | 0                   | 3                   | 0        | 40         |
| 3             | 0         | 16        | 0             | 12                  | 0                   | 0        | 28         |
| 4             | 0         | 10        | 0             | 1                   | 0                   | 0        | 11         |
| <b>Total</b>  | <b>47</b> | <b>35</b> | <b>14</b>     | <b>16</b>           | <b>3</b>            | <b>0</b> | <b>115</b> |

**Recommended Course Schedule**

| YEAR 1 SEMESTER 1 |  |                     |           |                               |
|-------------------|--|---------------------|-----------|-------------------------------|
| Course Code       | Course Title   | Type                | AU        | Pre-requisite                 |
| SC1003            | Introduction to Computational Thinking & Programming | Professional Series | 3         | Nil                           |
| SC1004            | Linear Algebra for Computing                         | Core                | 4         | SC1003 (co-requisite)         |
| SC1005            | Digital Logic  | Core                | 3         | Nil                           |
| MH1812            | Discrete Mathematics                                 | Core                | 3         | Nil                           |
| CC0003            | Ethics & Civics in a Multicultural World             | C-Core              | 2         | Nil                           |
| CC0015            | Health & Wellbeing                                   | C-Core              | 2         | Nil                           |
| HW0001            | Introduction to Academic Communication               | -                   | -         | For student failed QET        |
| HW0002            | Calculus   | -                   | -         | For student not done Calculus |
|                   |  |                     | <b>17</b> |                               |

| YEAR 1 SEMESTER 2 |  |        |           |                       |
|-------------------|--|--------|-----------|-----------------------|
| Course Code       | Course Title   | Type   | AU        | Pre-requisite         |
| SC1006            | Computer Organisation & Architecture                     | Core   | 3         | SC1005 (co-requisite) |
| SC1007            | Data Structures & Algorithms                             | Core   | 3         | SC1003                |
| SC1008            | C and C++ Programming                                    | Core   | 3         | SC1003                |
| SC2000            | Probability & Statistics for Computing                   | Core   | 3         | Nil                   |
| SC2002            | Object Oriented Design & Programming                     | Core   | 3         | SC1003 OR SC1007      |
| CC0001            | Inquiry & Communication in an Interdisciplinary World    | C-Core | 2         | Nil                   |
| ML0004            | Career Design & Workplace Readiness in the V.U.C.A World | C-Core | 2         | Nil                   |
|                   |  |        | <b>19</b> |                       |

**Year 1 Total AU**

**36**

| YEAR 2 SEMESTER 1 |  |        |           |                          |
|-------------------|--|--------|-----------|--------------------------|
| Course Code       | Course Title   | Type   | AU        | Pre-requisite            |
| SC2001            | Algorithm Design & Analysis                            | Core   | 3         | SC1007 & MH1812          |
| SC2005            | Operating Systems                                      | Core   | 3         | SC1006 & SC1007          |
| SC2203            | Automata, Computability and Complexity                 | Core   | 3         | SC2001 (co-requisite)    |
| SC2006            | Software Engineering                                   | Core   | 3         | SC2002 (co-requisite)    |
| SC2008            | Computer Network                                       | Core   | 3         | SC2000 & SC1004          |
| CC0007            | Science & Technology for Humanity                      | C-Core | 3         | Nil                      |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE    | 3         | Year 3 Standing          |
| CSL               | CSL (service learning course)- Part 1                  | CSL    | -         | (Continue in Semester 2) |
|                   |  |        | <b>21</b> |                          |

| YEAR 2 SEMESTER 2 |  |        |           |                            |
|-------------------|--|--------|-----------|----------------------------|
| Course Code       | Course Title   | Type   | AU        | Pre-requisite              |
| SC2207            | Introduction to Databases                              | Core   | 3         | SC2001 (co-requisite)      |
| CC0006            | Sustainability: Society, Economy & Environment         | C-Core | 3         | Nil                        |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE    | 3         | Year 3 Standing            |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE    | 3         | Year 3 Standing            |
| SC3099            | Capstone Project                                       | Core   | 4         | Year 3 Standing            |
| CSL               | CSL (service learning course)- Part 2                  | CSL    | 3         | (Continue from Semester 1) |
|                   |  |        | <b>19</b> |                            |

**Year 2 Total AU**

**40**

| YEAR 3 SEMESTER 1 |                                  |                     |    |                 |
|-------------------|----------------------------------|---------------------|----|-----------------|
| Course Code       | Course Title                     | Type                | AU | Pre-requisite   |
| SC3920            | Professional Internship (Graded) | Professional Series | 10 | Year 3 Standing |
|                   |                                  |                     |    |                 |
|                   |                                  |                     |    |                 |
|                   |                                  |                     |    |                 |
|                   |                                  |                     |    |                 |
|                   |                                  |                     | 10 |                 |

| YEAR 3 SEMESTER 2 |  |                     |    |                          |
|-------------------|--|---------------------|----|--------------------------|
| Course Code       | Course Title   | Type                | AU | Pre-requisite            |
| SC4079            | Final Year Project (Part 1)                            | MPE                 | 4  | Year 4 Standing          |
| HW0288            | Engineering Communication                              | Professional Series | 2  | CC0001 & Year 3 standing |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE                 | 3  | Year 3 Standing          |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE                 | 3  | Year 3 Standing          |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE                 | 3  | Year 3 Standing          |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE                 | 3  | Year 3 Standing          |
|                   |  |                     | 18 |                          |
| Year 3 Total AU   |  |                     | 28 |                          |

| YEAR 4 SEMESTER 1 |   |                     |    |                 |
|-------------------|---|---------------------|----|-----------------|
| Course Code       | Course Title                                    | Type                | AU | Pre-requisite   |
| SC4079            | Final Year Project (Part 2)                     | MPE                 | 4  | Year 4 Standing |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE                 | 3  | Year 3 Standing |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE                 | 3  | Year 3 Standing |
| ML0015            | Profession Preparation                          | Professional Series | 1  | Nil             |
|                   |   |                     |    |                 |
|                   |   |                     |    |                 |
|                   |   |                     | 11 |                 |

| YEAR 4 SEMESTER 2 |              |      |    |               |
|-------------------|--------------|------|----|---------------|
| Course Code       | Course Title | Type | AU | Pre-requisite |
|                   |              |      |    |               |
|                   |              |      |    |               |
|                   |              |      |    |               |
|                   |              |      |    |               |
|                   |              |      | 0  |               |
| Year 4 Total AU   |              |      | 11 |               |

**Note:**

1. Students are required to complete **9 Major Prescribed Electives** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.
2. Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPEs** in its place.
3. In order to graduate with **Highest Distinction**, students must complete a **Final Year Project**.

| MPE Structure of Computer Science (U24 and after)                       |              |           |                            |
|---|--------------|-----------|----------------------------|
| Course Code   | Type         | AU        | Remarks                    |
| SC3000  | MPE-1        | 3         | MPE(Compulsory)            |
| SC3010  | MPE-2        | 3         | MPE(Compulsory)            |
| SC3xxx/SC4xxx   | MPE-3        | 3         | Any MPE                    |
| SC3xxx/SC4xxx   | MPE-4        | 3         | Any MPE                    |
| SC3xxx/SC4xxx   | MPE-5        | 3         | Any MPE                    |
| SC4xxx  | MPE-6        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-7        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-8        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-9        | 3         | MPE (Choose within SC4xxx) |
|   | <b>Total</b> | <b>27</b> |                            |
| Please refer to the CSC MPE Courses and Specialization on CCDS website. |              |           |                            |

**AY2025-2026 AND LATER COHORTS**  
**Curriculum for Bachelor of Computing (Computer Science)**

**Exempted Polytechnic Students (PI and PA option)**

**PA option : 10-WEEK Professional Attachment**

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

| Year of Study | Core      | MPE       | ICC           |                     |                     | BDE      | Total AU   |
|---------------|-----------|-----------|---------------|---------------------|---------------------|----------|------------|
|               |           |           | Common - Core | Professional Series | Care, Serve & Learn |          |            |
| 1             | 25        | 0         | 6             | 3                   | 0                   | 0        | 34         |
| 2             | 22        | 9         | 8             | 5                   | 3                   | 0        | 47         |
| 3             | 0         | 26        | 0             | 3                   | 0                   | 5        | 34         |
| <b>Total</b>  | <b>47</b> | <b>35</b> | <b>14</b>     | <b>11</b>           | <b>3</b>            | <b>5</b> | <b>115</b> |

**Recommended Course Schedule**

| YEAR 1 SEMESTER 1 |  |                     |           |                               |
|-------------------|--|---------------------|-----------|-------------------------------|
| Course Code       | Course Title   | Type                | AU        | Pre-requisite                 |
| SC1003            | Introduction to Computational Thinking & Programming | Professional Series | 3         | Nil                           |
| SC1004            | Linear Algebra for Computing                         | Core                | 4         | SC1003 (co-requisite)         |
| SC1005            | Digital Logic  | Core                | 3         | Nil                           |
| MH1812            | Discrete Mathematics                                 | Core                | 3         | Nil                           |
| CC0003            | Ethics & Civics in a Multicultural World             | C-Core              | 2         | Nil                           |
| CC0015            | Health & Wellbeing                                   | C-Core              | 2         | Nil                           |
| HW0001            | Introduction to Academic Communication               | -                   | -         | For student failed QET        |
| HW0002            | Calculus   | -                   | -         | For student not done Calculus |
|                   |  |                     | <b>17</b> |                               |

| YEAR 1 SEMESTER 2 |   |        |           |                       |
|-------------------|---|--------|-----------|-----------------------|
| Course Code       | Course Title  | Type   | AU        | Pre-requisite         |
| SC1006            | Computer Organisation & Architecture                  | Core   | 3         | SC1005 (co-requisite) |
| SC1007            | Data Structures & Algorithms                          | Core   | 3         | SC1003                |
| SC1008            | C and C++ Programming                                 | Core   | 3         | SC1003                |
| SC2000            | Probability & Statistics for Computing                | Core   | 3         | Nil                   |
| SC2002            | Object Oriented Design & Programming                  | Core   | 3         | SC1003 OR SC1007      |
| CC0001            | Inquiry & Communication in an Interdisciplinary World | C-Core | 2         | Nil                   |
|                   |   |        | <b>17</b> |                       |

**Year 1 Total AU      34**

| YEAR 2 SEMESTER 1 |  |        |           |                          |
|-------------------|--|--------|-----------|--------------------------|
| Course Code       | Course Title   | Type   | AU        | Pre-requisite            |
| SC2001            | Algorithm Design & Analysis                            | Core   | 3         | SC1007 & MH1812          |
| SC2005            | Operating Systems                                      | Core   | 3         | SC1006 & SC1007          |
| SC2203            | Automata, Computability and Complexity                 | Core   | 3         | SC2001 (co-requisite)    |
| SC2006            | Software Engineering                                   | Core   | 3         | SC2002 (co-requisite)    |
| SC2008            | Computer Network                                       | Core   | 3         | SC2000 & SC1004          |
| CC0007            | Science & Technology for Humanity                      | C-Core | 3         | Nil                      |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE    | 3         | Year 3 Standing          |
|                   | CSL(service learning course)- Part 1                   | CSL    | -         | (Continue in Semester 2) |
|                   |  |        | <b>21</b> |                          |

| YEAR 2 SEMESTER 2 |  |        |           |                            |
|-------------------|--|--------|-----------|----------------------------|
| Course Code       | Course Title   | Type   | AU        | Pre-requisite              |
| SC2207            | Introduction to Databases                                | Core   | 3         | SC2001 (co-requisite)      |
| CC0006            | Sustainability: Society, Economy & Environment           | C-Core | 3         | Nil                        |
| ML0004            | Career Design & Workplace Readiness in the V.U.C.A World | C-Core | 2         | Nil                        |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx)   | MPE    | 3         | Year 3 Standing            |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx)   | MPE    | 3         | Year 3 Standing            |
| SC3099            | Capstone Project   | Core   | 4         | Year 3 Standing            |
| CSL               | CSL (service learning course)- Part 2                    | CSL    | 3         | (Continue from Semester 1) |
|                   |  |        | <b>21</b> |                            |

| YEAR 2 SPECIAL SEMESTER |                         |                     |    |                 |
|-------------------------|-------------------------|---------------------|----|-----------------|
| Course Code             | Course Title            | Type                | AU | Pre-requisite   |
| SC3026                  | Professional Attachment | Professional Series | 5  | Year 3 Standing |

**Year 2 Total AU      47**

| YEAR 3 SEMESTER 1 |  |                     |           |                          |
|-------------------|--|---------------------|-----------|--------------------------|
| Course Code       | Course Title   | Type                | AU        | Pre-requisite            |
| SC4079            | Final Year Project (Part 1)                            | MPE                 | 4         | Year 4 Standing          |
| HW0288            | Engineering Communication                              | Professional Series | 2         | CC0001 & Year 3 standing |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE                 | 3         | Year 3 Standing          |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE                 | 3         | Year 3 Standing          |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE                 | 3         | Year 3 Standing          |
|                   | Broadening and Deepening Elective                      | BDE                 | 2         | Refer to Class Schedule  |
| ML0015            | Profession Preparation                                 | Professional Series | 1         | Nil                      |
|                   |  |                     | <b>18</b> |                          |

| YEAR 3 SEMESTER 2 |   |      |           |                         |
|-------------------|---|------|-----------|-------------------------|
| Course Code       | Course Title                                    | Type | AU        | Pre-requisite           |
| SC4079            | Final Year Project (Part 2)                     | MPE  | 4         | Year 4 Standing         |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE  | 3         | Year 3 Standing         |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE  | 3         | Year 3 Standing         |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE  | 3         | Year 3 Standing         |
|                   | Broadening and Deepening Elective               | BDE  | 3         | Refer to Class Schedule |
|                   |   |      |           |                         |
|                   |   |      |           |                         |
|                   |   |      |           |                         |
|                   |   |      | <b>16</b> |                         |

**Year 3 Total AU 34**

**Note:**

1. Students are required to complete **9 Major Prescribed Electives** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.
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3. In order to graduate with **Highest Distinction**, students must complete a **Final Year Project**.

| MPE Structure of Computer Science (U24 and after)                       |              |           |                            |
|---|--------------|-----------|----------------------------|
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| SC3000  | MPE-1        | 3         | MPE(Compulsory)            |
| SC3010  | MPE-2        | 3         | MPE(Compulsory)            |
| SC3xxx/SC4xxx   | MPE-3        | 3         | Any MPE                    |
| SC3xxx/SC4xxx   | MPE-4        | 3         | Any MPE                    |
| SC3xxx/SC4xxx   | MPE-5        | 3         | Any MPE                    |
| SC4xxx  | MPE-6        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-7        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-8        | 3         | MPE (Choose within SC4xxx) |
| SC4xxx  | MPE-9        | 3         | MPE (Choose within SC4xxx) |
|   | <b>Total</b> | <b>27</b> |                            |
| Please refer to the CSC MPE Courses and Specialization on CCDS website. |              |           |                            |