

**AY2025-2026**  
**CURRICULUM FOR 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 |          |                |
| Y1            | 25        | 0            | 8             | 3                   | 0                  | 0        | 36             |
| Y2            | 22        | 9            | 6             | 0                   | 3                  | 0        | 40             |
| Y3            | 0         | 16           | 0             | 12                  | 0                  | 0        | 28             |
| Y4            | 0         | 10/11        | 0             | 1                   | 0                  | 0        | 11/12          |
| <b>Total</b>  | <b>47</b> | <b>35/36</b> | <b>14</b>     | <b>16</b>           | <b>3</b>           | <b>0</b> | <b>115/116</b> |

**Recommended Course Schedule**

**YEAR 1 SEMESTER 1**

| Course Code  | Course Title   | Type     | AU        | Pre-requisite/Remark          |
|--------------|--|----------|-----------|-------------------------------|
| SC1003       | Introduction to Computational Thinking & Programming | P-Series | 3         | Nil                           |
| SC1004       | Linear Algebra for Computing                         | Core     | 4         | SC1003 (co-req)               |
| 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>TOTAL</b> |  |          | <b>17</b> |                               |

**YEAR 1 SEMESTER 2**

| Course Code            | Course Title   | Type   | AU        | Pre-requisite/Remark |
|------------------------|--|--------|-----------|----------------------|
| SC1006                 | Computer Organisation & Architecture                     | Core   | 3         | SC1005 (co-req)      |
| 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>TOTAL</b>           |  |        | <b>19</b> |                      |
| <b>Year 1 Total AU</b> |  |        | <b>36</b> |                      |

**YEAR 2 SEMESTER 1**

| Course Code   | Course Title   | Type   | AU        | Pre-requisite/Remark |
|---------------|--|--------|-----------|----------------------|
| SC2001        | Algorithm Design & Analysis                            | Core   | 3         | SC1007 & MH1812      |
| SC2005        | Operating Systems                                      | Core   | 3         | SC1006 & SC1007      |
| SC2203        | Automata, Computability and Complexity                 | Core   | 3         | SC2001 (co-req)      |
| SC2006        | Software Engineering                                   | Core   | 3         | SC2002 (co-req)      |
| 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-1  | 3         | Year 3 Standing      |
| CSL           | CSL (service learning course) - Part 1                 | CSL    | 3         | (Continue in Y2S2)   |
| <b>TOTAL</b>  |  |        | <b>24</b> |                      |

**YEAR 2 SEMESTER 2**

| Course Code            | Course Title   | Type   | AU        | Pre-requisite/Remark |
|------------------------|--|--------|-----------|----------------------|
| SC3099                 | Capstone Project                                       | Core   | 4         | Year 3 Standing      |
| SC2207                 | Introduction to Databases                              | Core   | 3         | SC2001 (co-req)      |
| SC3xxx/SC4xxx          | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-2  | 3         | Refer to MPE listing |
| SC3xxx/SC4xxx          | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-3  | 3         | Refer to MPE listing |
| CC0006                 | Sustainability: Society, Economy & Environment         | C-Core | 3         | Nil                  |
| CSL                    | CSL (service learning course) - Part 2                 | CSL    | -         | (Continue from Y2S1) |
| <b>TOTAL</b>           |  |        | <b>16</b> |                      |
| <b>Year 2 Total AU</b> |  |        | <b>40</b> |                      |

| YEAR 3 SEMESTER 1 |                                  |          |           |                      |
|-------------------|----------------------------------|----------|-----------|----------------------|
| Course Code       | Course Title                     | Type     | AU        | Pre-requisite/Remark |
| SC3920            | Professional Internship (Graded) | P-Series | 10        | Year 3 Standing      |
|                   |                                  |          |           |                      |
| <b>TOTAL</b>      |                                  |          | <b>10</b> |                      |

| YEAR 3 SEMESTER 2 |  |                        |           |                          |
|-------------------|--|------------------------|-----------|--------------------------|
| Course Code       | Course Title   | Type                   | AU        | Pre-requisite/Remark     |
| SC4079            | Final Year Project (Part 1)                            | MPE                    | 4         | Year 4 Standing          |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-4                  | 3         | Refer to MPE listing     |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-5                  | 3         | Refer to MPE listing     |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE-6                  | 3         | Refer to MPE listing     |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE-7                  | 3         | Refer to MPE listing     |
| HW0288            | Engineering Communication                              | P-Series               | 2         | CC0001 & Year 3 standing |
|                   |  |                        |           |                          |
| <b>TOTAL</b>      |  |                        | <b>18</b> |                          |
|                   |  | <b>Year 3 Total AU</b> | <b>28</b> |                          |

| YEAR 4 SEMESTER 1 |   |          |           |                      |
|-------------------|---|----------|-----------|----------------------|
| Course Code       | Course Title                                    | Type     | AU        | Pre-requisite/Remark |
| SC4079            | Final Year Project (Part 2)                     | MPE      | 4         | Year 4 Standing      |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE-8    | 3         | Refer to MPE listing |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx) | MPE-9    | 3         | Refer to MPE listing |
| ML0015            | Profession Preparation                          | P-Series | 1         | Nil                  |
|                   |   |          |           |                      |
|                   |   |          |           |                      |
| <b>TOTAL</b>      |   |          | <b>11</b> |                      |

| YEAR 4 SEMESTER 2 |              |                        |           |                      |
|-------------------|--------------|------------------------|-----------|----------------------|
| Course Code       | Course Title | Type                   | AU        | Pre-requisite/Remark |
|                   |              |                        |           |                      |
|                   |              |                        |           |                      |
|                   |              |                        |           |                      |
|                   |              |                        |           |                      |
| <b>TOTAL</b>      |              |                        | <b>0</b>  |                      |
|                   |              | <b>Year 4 Total AU</b> | <b>11</b> |                      |

**Grand Total (Year 1 to 4)**

**115**

**Important Note:**

1. Students are required to complete **9 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), of which **at least 4 must be 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                    |  |
| SC3xxx/SC4xxx                                     | MPE-1        | 3         | Any MPE                    |  |
| SC3xxx/SC4xxx                                     | MPE-2        | 3         | Any MPE                    |  |
| 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 the [CSC MPE Courses and Specialisation on CCDS website](#).

**AY2025-2026**  
**CURRICULUM FOR COMPUTER SCIENCE**

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

**PA option : 10-WEEK Professional Attachment (Graded)**

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

| Year of Study | Core      | MPE          | ICC           |                     |                    | BDE      | Total AU       |
|---------------|-----------|--------------|---------------|---------------------|--------------------|----------|----------------|
|               |           |              | Common - Core | Professional Series | Care, Serve, Learn |          |                |
| Y1            | 25        | 0            | 6             | 3                   | 0                  | 0        | 34             |
| Y2            | 22        | 9            | 8             | 5                   | 3                  | 0        | 47             |
| Y3            | 0         | 26/27        | 0             | 3                   | 0                  | 5        | 34/35          |
| <b>Total</b>  | <b>47</b> | <b>35/36</b> | <b>14</b>     | <b>11</b>           | <b>3</b>           | <b>5</b> | <b>115/116</b> |

**Recommended Course Schedule**

**YEAR 1 SEMESTER 1**

| Course Code  | Course Title   | Type     | AU        | Pre-requisite/Remark          |
|--------------|--|----------|-----------|-------------------------------|
| SC1003       | Introduction to Computational Thinking & Programming | P-Series | 3         | Nil                           |
| SC1004       | Linear Algebra for Computing                         | Core     | 4         | SC1003 (co-req)               |
| 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>TOTAL</b> |  |          | <b>17</b> |                               |

**YEAR 1 SEMESTER 2**

| Course Code  | Course Title  | Type   | AU        | Pre-requisite/Remark |
|--------------|---|--------|-----------|----------------------|
| SC1006       | Computer Organisation & Architecture                  | Core   | 3         | SC1005 (co-req)      |
| 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>TOTAL</b> |   |        | <b>17</b> |                      |

**Year 1 Total AU**

**34**

**YEAR 2 SEMESTER 1**

| Course Code   | Course Title   | Type   | AU        | Pre-requisite/Remark |
|---------------|--|--------|-----------|----------------------|
| SC2001        | Algorithm Design & Analysis                            | Core   | 3         | SC1007 & MH1812      |
| SC2005        | Operating Systems                                      | Core   | 3         | SC1006 & SC1007      |
| SC2203        | Automata, Computability and Complexity                 | Core   | 3         | SC2001 (co-req)      |
| SC2006        | Software Engineering                                   | Core   | 3         | SC2002 (co-req)      |
| SC2008        | Computer Network                                       | Core   | 3         | SC2000 & SC1004      |
| SC3xxx/SC4xxx | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-1  | 3         | Refer to MPE listing |
| CC0007        | Science & Technology for Humanity                      | C-Core | 3         | Nil                  |
| CSL           | CSL (service learning course) - Part 1                 | CSL    | 3         | (Continue in Y2S2)   |
| <b>TOTAL</b>  |  |        | <b>24</b> |                      |

**YEAR 2 SEMESTER 2**

| Course Code   | Course Title   | Type   | AU        | Pre-requisite/Remark |
|---------------|--|--------|-----------|----------------------|
| SC2207        | Introduction to Databases                                | Core   | 3         | SC2001 (co-req)      |
| SC3099        | Capstone Project   | Core   | 4         | Year 3 Standing      |
| SC3xxx/SC4xxx | Major Prescribe Elective (Choose within SC3xxx/SC4xxx)   | MPE-2  | 3         | Refer to MPE listing |
| SC3xxx/SC4xxx | Major Prescribe Elective (Choose within SC3xxx/SC4xxx)   | MPE-3  | 3         | Refer to MPE listing |
| ML0004        | Career Design & Workplace Readiness in the V.U.C.A World | C-Core | 2         | Nil                  |
| CC0006        | Sustainability: Society, Economy & Environment           | C-Core | 3         | Nil                  |
| CSL           | CSL (service learning course) - Part 2                   | CSL    | -         | (Continue from Y2S1) |
| <b>TOTAL</b>  |  |        | <b>18</b> |                      |

| YEAR 2 SPECIAL SEMESTER |                                  |          |          |                      |
|-------------------------|----------------------------------|----------|----------|----------------------|
| Course Code             | Course Title                     | Type     | AU       | Pre-requisite/Remark |
| SC3910                  | Professional Attachment (Graded) | P-Series | 5        | Year 3 Standing      |
| <b>TOTAL</b>            |                                  |          | <b>5</b> |                      |

Year 2 Total AU

47

| YEAR 3 SEMESTER 1 |  |          |           |                          |
|-------------------|--|----------|-----------|--------------------------|
| Course Code       | Course Title   | Type     | AU        | Pre-requisite/Remark     |
| SC4079            | Final Year Project (Part 1)                            | MPE      | 4         | Year 4 Standing          |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-4    | 3         | Refer to MPE listing     |
| SC3xxx/SC4xxx     | Major Prescribe Elective (Choose within SC3xxx/SC4xxx) | MPE-5    | 3         | Refer to MPE listing     |
| SC4xxx            | Major Prescribe Elective (Choose within SC4xxx)        | MPE-6    | 3         | Refer to MPE listing     |
| HW0288            | Engineering Communication                              | P-Series | 2         | CC0001 & Year 3 standing |
| ML0015            | Profession Preparation                                 | P-Series | 1         | Nil                      |
|                   | Broadening and Deepening Elective                      | BDE      | 2         | Reffer to Class Schedule |
| <b>TOTAL</b>      |  |          | <b>18</b> |                          |

| YEAR 3 SEMESTER 2                |   |       |                        |                         |
|----------------------------------|---|-------|------------------------|-------------------------|
| Course Code                      | Course Title                                    | Type  | AU                     | Pre-requisite/Remark    |
| SC4079                           | Final Year Project (Part 2)                     | MPE   | 4                      | Year 4 Standing         |
| SC4xxx                           | Major Prescribe Elective (Choose within SC4xxx) | MPE-7 | 3                      | Refer to MPE listing    |
| SC4xxx                           | Major Prescribe Elective (Choose within SC4xxx) | MPE-8 | 3                      | Refer to MPE listing    |
| SC4xxx                           | Major Prescribe Elective (Choose within SC4xxx) | MPE-9 | 3                      | Refer to MPE listing    |
|                                  | Broadening and Deepening Elective               | BDE   | 3                      | Refer to Class Schedule |
|                                  |   |       |                        |                         |
|                                  |   |       |                        |                         |
|                                  |   |       |                        |                         |
| <b>TOTAL</b>                     |   |       | <b>16</b>              |                         |
|                                  |   |       | <b>Year 4 Total AU</b> |                         |
|                                  |   |       | <b>34</b>              |                         |
| <b>Grand Total (Year 1 to 4)</b> |   |       | <b>115</b>             |                         |

**Important Note:**

- Students are required to complete **9 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.
- Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPEs** in its place.
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| MPE Structure of Computer Science (U24 and after)                                    |              |           |                            |
|--|--------------|-----------|----------------------------|
| Course Code  | Type         | AU        | Remarks                    |
| SC3xxx/SC4xxx  | MPE-1        | 3         | Any MPE                    |
| SC3xxx/SC4xxx  | MPE-2        | 3         | Any MPE                    |
| 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> |                            |
| <a href="#">Please refer the CSC MPE Courses and Specialisation on CCDS website.</a> |              |           |                            |