

**C N YANG SCHOLARS' PROGRAMME**  
(Admission to Year 1 from AY2014-2015)

**AU REQUIREMENT TABLE**

| STUDY YEAR | MAJOR REQUIREMENTS |                                | GENERAL EDUCATION REQUIREMENTS (GER) |                              |                                |                      |                             | TOTAL |
|------------|--------------------|--------------------------------|--------------------------------------|------------------------------|--------------------------------|----------------------|-----------------------------|-------|
|            | CORE (C)           | MAJOR PRESCRIBED ELECTIVE (PE) | GER-CORE (GC)                        | GER PRESCRIBED ELECTIVE (GP) |                                |                      | UNRESTRICTED ELECTIVES (UE) |       |
|            |                    |                                |                                      | LIBERAL ARTS (LA)            | SCIENCE, TECH. & SOCIETY (STS) | BUSINESS & MGMT (BM) |                             |       |
| 1          | 32                 | 6                              | 4                                    |                              |                                |                      |                             | 42    |
| 2          | 37                 |                                | 1                                    |                              |                                |                      |                             | 38    |
| 3          | 18                 | 6                              | 2                                    |                              |                                |                      |                             | 26    |
| 4          | 8                  | 13                             | 5                                    |                              |                                |                      |                             | 26    |
| ANY YEAR   |                    |                                |                                      | 3                            | 3                              | 3                    |                             | 9     |
| TOTAL      | 95                 | 25                             | 12                                   | 3                            | 3                              | 3                    | 0                           | 141   |

**CURRICULUM STRUCTURE**

| COURSE CODE AND TITLE   | TYPE | NUMBER OF HOURS PER WEEK |     |      |       | AU | LAB CODE | PRE-REQUISITE/ CO-REQUISITE <sup>A</sup> |
|---|------|--------------------------|-----|------|-------|----|----------|--|
|   |      | LEC                      | TUT | LAB  | TOTAL |    |          |  |
| <b>ENGINEERING YEAR 1 – SEMESTER 1</b>  |      |                          |     |      |       |    |          |  |
| CY1001 INTRODUCTORY BIOLOGY   | C    | 2                        | 2   | 0    | 4     | 4  |          |  |
| CY1101 PRINCIPLES OF MODERN CHEMISTRY   | C    | 3                        | 1   | 0    | 4     | 4  |          |  |
| CY1201 CALCULUS OF ONE VARIABLE   | C    | 3                        | 1   | 0.5  | 4.5   | 4  |          | REPLACES MH1810                          |
| CY1305 MECHANICS  | C    | 2                        | 1   | 0    | 3     | 3  |          | REPLACES PH1011                          |
| LABORATORY *  | P    | 0                        | 0   | 6    | 6     | 3  |          | REPLACES FE1073                          |
| HW0188 ENGINEERING COMMUNICATION I  | GC   | 0                        | 2   | 0    | 2     | 2  |          | HW0001                                   |
| GC0001 INTRODUCTION TO SUSTAINABILITY: MULTIDISCIPLINARY APPROACHES AND SOLUTIONS (ONLINE)  | GC   | 0                        | 0   | 0    | 0     | 1  |          |  |
| TOTAL   |      | 10                       | 7   | 6.5  | 23.5  | 21 |          |  |
| * Choose one from the following two laboratories:<br><ul style="list-style-type: none"> <li>• CY1102 FUNDAMENTALS TECHNIQUES OF EXPERIMENTAL CHEMISTRY AND BIOLOGICAL CHEMISTRY</li> <li>• CY1304 PHYSICS LABORATORY I</li> </ul> |      |                          |     |      |       |    |          |  |
| <b>YEAR 1 – SEMESTER 2</b>  |      |                          |     |      |       |    |          |  |
| CY1202 CALCULUS OF SEVERAL VARIABLES  | C    | 3                        | 1   | 0.5  | 4.5   | 4  |          | REPLACES MH1811                          |
| CY1306 ELECTRICITY AND MAGNETISM  | C    | 2                        | 1   | 0    | 3     | 3  |          | REPLACES EE1002                          |
| CY1307 RELATIVITY AND QUANTUM PHYSICS   | C    | 2                        | 1   | 0    | 3     | 3  |          |  |
| CY1400 CN YANG SCHOLAR PROG UNDERGRAD RESEARCH EXPERIENCE   | P    | 0                        | 0   | 9    | 9     | 3  |          |  |
| CY1500 INTRODUCTORY RESEARCH METHODOLOGY  | C    | 2                        | 1   | 0    | 3     | 3  |          |  |
| EE1003 INTRODUCTION TO MATERIALS FOR ELECTRONICS  | C    | 2                        | 1   | 0    | 3     | 3  |          |  |
| EE1071 EEE LABORATORY 1   | C    | 0                        | 0   | 3    | 3     | 1  |          |  |
| ML0001 ABSOLUTE BASICS FOR CAREER (ONLINE)  | GC   | 0                        | 0   | 0    | 0     | 1  |          |  |
| TOTAL   |      | 11                       | 5   | 12.5 | 28.5  | 21 |          |  |
| <b>YEAR 2 – SEMESTER 1</b>  |      |                          |     |      |       |    |          |  |
| CY1203 LINEAR ALGEBRA & DIFFERENTIAL EQUATIONS  | C    | 2                        | 2   | 0.5  | 4.5   | 4  |          | REPLACES EE2007                          |
| FE1008 COMPUTING  | C    | 2                        | 1   | 0    | 3     | 3  |          |  |
| EE2001 CIRCUIT ANALYSIS   | C    | 3                        | 1   | 0    | 4     | 4  | E2001L   |  |
| EE2004 DIGITAL ELECTRONICS  | C    | 3                        | 1   | 0    | 4     | 4  | E2004L   |  |
| EE2006 ENGINEERING MATHEMATICS I  | C    | 3                        | 1   | 0    | 4     | 4  |          | CY1202                                   |
| HY0001 ETHICS AND MORAL REASONING (ONLINE)  | GC   | 0                        | 0   | 0    | 0     | 1  |          |  |
| TOTAL   |      | 13                       | 6   | 0.5  | 19.5  | 20 |          |  |

| COURSE CODE AND TITLE                               | TYPE                                 | NUMBER OF HOURS PER WEEK |                     |     |       | AU   | LAB CODE | PRE-REQUISITE/<br>CO-REQUISITE <sup>A</sup> |  |
|---|--------------------------------------|--------------------------|---------------------|-----|-------|------|----------|---|--|
|   |                                      | LEC                      | TUT                 | LAB | TOTAL |      |          |   |  |
| <b>YEAR 2 – SEMESTER 2</b>                          |                                      |                          |                     |     |       |      |          |   |  |
| EE2002  | ANALOG ELECTRONICS                   | C                        | 3                   | 1   | 0     | 4    | 4        | E2002L EE2001                               |  |
| EE2003  | SEMICONDUCTOR FUNDAMENTALS           | C                        | 3                   | 1   | 0     | 4    | 4        | E2003L EE1002                               |  |
| EE2008  | DATA STRUCTURES & ALGORITHMS         | C                        | 3                   | 1   | 0     | 4    | 4        | E2008L                                      |  |
| EE2010  | SIGNALS AND SYSTEMS                  | C                        | 3                   | 1   | 0     | 4    | 4        | E2010L CY1201 & CY1202                      |  |
| EE2073  | INTRODUCTION TO EEE DESIGN & PROJECT | C                        | 0.5                 | 0.5 | 3     | 4    | 2        |   |  |
| GER PRESCRIBED ELECTIVE 1                           |                                      | GP                       | 2                   | 1   | 0     | 3    | 3        |   |  |
| TOTAL   |                                      |                          | 14.5                | 5.5 | 3     | 23   | 21       |   |  |
| <b>YEAR 3 – SEMESTER 1</b>                          |                                      |                          |                     |     |       |      |          |   |  |
| EE3001  | ENGINEERING ELECTROMAGNETICS         | C                        | 3                   | 1   | 0     | 4    | 4        | E3001L CY1203 <sup>A</sup>                  |  |
| EE3002  | MICROPROCESSORS                      | C                        | 3                   | 1   | 0     | 4    | 4        | E3002L                                      |  |
| EE3080  | DESIGN & INNOVATION PROJECT          | C                        | 0.5                 | 0   | 6     | 6.5  | 2        | REFER TO WEBSITE                            |  |
| EE3XXX  | TECHNICAL ELECTIVE 1                 | P                        | 2                   | 1   | 0     | 3    | 3        |   |  |
| EE3XXX  | TECHNICAL ELECTIVE 2                 | P                        | 2                   | 1   | 0     | 3    | 3        |   |  |
| ET0001  | ENTERPRISE AND INNOVATION (ONLINE)   | GC                       | 0                   | 0   | 0     | 0    | 1        |   |  |
| GER PRESCRIBED ELECTIVE 2                           |                                      | GP                       | 2                   | 1   | 0     | 3    | 3        |   |  |
| TOTAL   |                                      |                          | 12.5                | 5   | 6     | 23.5 | 20       |   |  |
| <b>YEAR 3 – SEMESTER 2</b>                          |                                      |                          |                     |     |       |      |          |   |  |
| EE3179  | PROFESSIONAL INTERNSHIP              | C                        | 20 WEEKS, FULL-TIME |     |       |      | 8        | REFER TO WEBSITE                            |  |
| ML0002  | CAREER POWER-UP (ONLINE)             | GC                       | 0                   | 0   | 0     | 0    | 1        |   |  |
| TOTAL   |                                      |                          | -                   | -   | -     | -    | 9        |   |  |
| <b>YEAR 4 – SEMESTER 1</b>                          |                                      |                          |                     |     |       |      |          |   |  |
| EE4080  | FINAL YEAR PROJECT                   | C                        | 0                   | 0   | 12    | 12   | 4        | REFER TO WEBSITE                            |  |
| EE4XXX  | DESIGN ELECTIVE 1                    | P                        | 1                   | 0   | 3     | 4    | 2        |   |  |
| EE4XXX  | TECHNICAL ELECTIVE 1                 | P                        | 2                   | 1   | 0     | 3    | 3        |   |  |
| EE4XXX  | TECHNICAL ELECTIVE 2                 | P                        | 2                   | 1   | 0     | 3    | 3        |   |  |
| HW0288  | ENGINEERING COMMUNICATION II         | GC                       | 0                   | 2   | 0     | 2    | 2        | HW0188                                      |  |
| TOTAL   |                                      |                          | 5                   | 4   | 15    | 24   | 14       |   |  |
| <b>YEAR 4 – SEMESTER 2</b>                          |                                      |                          |                     |     |       |      |          |   |  |
| EE4080  | FINAL YEAR PROJECT                   | C                        | 0                   | 0   | 12    | 12   | 4        | REFER TO WEBSITE                            |  |
| EE4XXX  | DESIGN ELECTIVE 2                    | P                        | 1                   | 0   | 3     | 4    | 2        |   |  |
| EE4XXX  | TECHNICAL ELECTIVE 3                 | P                        | 2                   | 1   | 0     | 3    | 3        |   |  |
| EE0040  | ENGINEERS & SOCIETY                  | GC                       | 2                   | 1   | 0     | 3    | 3        | YEAR 4 CLASSIFICATION                       |  |
| GER PRESCRIBED ELECTIVE 3                           |                                      | GP                       | 2                   | 1   | 0     | 3    | 3        |   |  |
| TOTAL   |                                      |                          | 7                   | 3   | 15    | 25   | 15       |   |  |
| <b>TOTAL ACADEMIC UNITS REQUIRED FOR GRADUATION</b> |                                      |                          |                     |     |       |      |          | <b>141</b>                                  |  |

Website reference:

- <http://www.eee.ntu.edu.sg/programmes/currentstudents/undergraduate/undergraduatefull-time/pages/courseinformation.aspx>
- <http://www.ntu.edu.sg/cnyang-scholars/Pages/ProgrammeCurriculum.aspx>