



# แนะนำให้ลงทะเบียนแผน SCCT 3 years

## SCCT แผนการเรียน 3 ปี

| 1 <sup>st</sup> Year Semester 1 |                                |           | 1 <sup>st</sup> Year Semester 2 |                                   |           |
|---------------------------------|--------------------------------|-----------|---------------------------------|-----------------------------------|-----------|
| SCBE 101                        | General Biology I              | 3 (3-0-6) | SCCT 112                        | Analytical Chemistry              | 3 (3-0-6) |
| SCBE 102                        | General Biology Laboratory     | 1 (0-3-1) | SCCT 116                        | Analytical Chemistry Laboratory   | 1 (0-3-1) |
| SCCT 111                        | Principle of Chemistry         | 3 (3-0-6) | SCCT 118                        | Chemistry Laboratory II           | 1 (0-3-1) |
| SCCT 117                        | Chemistry Laboratory I         | 1 (0-3-1) | SCCT 121                        | Principle of Organic Chemistry    | 3 (3-0-6) |
| SCMA 174                        | Calculus and system ODE        | 3 (3-0-6) | SCCT 141                        | Chemical Structure and Properties | 3 (3-0-6) |
| SCPY 180                        | General Physics                | 3 (3-0-6) |                                 |                                   |           |
| SCPY 111                        | Basic Physic Laboratory        | 1 (0-3-1) |                                 |                                   |           |
| LAEN 180                        | English for Academic Purpose I | 2 (2-0-4) | LAEN 181                        | English for Academic Purpose II   | 2 (2-0-4) |
| xxx                             | General education              | 3 (3-0-6) | SCGI 134                        | Internet of Things and Big Data   | 3 (3-0-6) |
| xxx                             | General education              | 2 (2-0-4) | xxx                             | General Education                 | 3 (3-0-6) |
|                                 |                                |           | xxx                             | Free Elective                     | 2 (2-0-4) |
|                                 | <b>Total Credits</b>           | <b>22</b> |                                 | <b>Total Credits</b>              | <b>21</b> |

| 1 <sup>nd</sup> Year Summer |  |           |
|-----------------------------|--|-----------|
| SCSI 211                    | Chemical Safety and Hazardous Waste management | 3 (3-0-6) |
| SCSI 212                    | Cooperative Education Preparation              | 2 (2-0-4) |
|                             | <b>Total Credits</b>                           | <b>5</b>  |



# แนะนำให้ลงทะเบียนแผน SCCT 3 years

## SCCT แผนการเรียน 3 ปี

| 2 <sup>nd</sup> Year Semester 1 |  |           | 2 <sup>nd</sup> Year Semester 2 |                                    |           |
|---------------------------------|--|-----------|---------------------------------|------------------------------------|-----------|
| SCCT 212                        | Instrumental Analysis                        | 3 (3-0-6) | SCCT 232                        | Energy Balance and Analysis        | 3 (2-2-5) |
| SCCT 221                        | Chemical Transformations                     | 3 (3-0-6) | SCCT 251                        | Chemical Innovation I              | 2 (2-0-4) |
| SCCT 226                        | Building Molecules                           | 1 (0-3-1) | SCCT 261                        | Polymers from Origin to Technology | 3 (3-0-6) |
| SCCT 231                        | Chemical Dynamics in Industrial Applications | 3 (2-2-5) | SCCT 262                        | Tools for Giant Molecules          | 2 (2-0-4) |
| SCCT 241                        | Chemical Elements in Modern World            | 2 (2-0-4) | SCCT 271                        | Instrumental Analysis Laboratory   | 2 (0-6-2) |
|                                 |  |           | SCCT 281                        | Digital Transformation             | 2 (2-0-4) |
|                                 |  |           | SCCT xxx                        | Elective course I                  | 3 (3-0-6) |
|                                 |  |           | SCCT xxx                        | Elective course II                 | 2 (2-0-4) |
| xxx                             | General education                            | 2 (3-0-6) |                                 |                                    |           |
| xxx                             | General education                            | 2 (2-0-4) |                                 |                                    |           |
| xxx                             | Free Elective                                | 2 (2-0-4) | xxx                             | Free Elective                      | 2 (2-0-4) |
| <b>Total Credits</b>            |  | <b>18</b> | <b>Total Credits</b>            |                                    | <b>21</b> |

## 2<sup>nd</sup> Year Summer

|                      |                                       |           |
|----------------------|---------------------------------------|-----------|
| SCCT 352             | Industrial Experienced-Based Learning | 2 (2-0-4) |
| SCCT 382             | Carbon Neutrality                     | 2 (2-0-4) |
| SCCT 395             | Scientific Communication              | 1 (1-0-2) |
| <b>Total Credits</b> |                                       | <b>5</b>  |





## 2.3) Major Elective courses

no less than 15 Credits

|          |  |           |
|----------|--|-----------|
| SCCT 314 | Environmental Chemistry                  | 3 (3-0-6) |
| SCCT 321 | Drug Design and Drug Action              | 3 (3-0-6) |
| SCCT 322 | Molecular Design and Synthesis           | 3 (3-0-6) |
| SCCT 325 | Problem Solving in Chemistry             | 2 (2-0-4) |
| SCCT 332 | Charge Transfer Systems and Technologies | 3 (3-0-6) |
| SCCT 342 | Colour Dye and Textile                   | 2 (2-0-4) |
| SCCT 383 | Chemistry Start-Ups                      | 2 (2-0-4) |
| SCCT 392 | Frontiers in Chemical Technology         | 2 (2-0-4) |
| SCCT 411 | Automation in Chemical Analysis          | 3 (2-0-6) |
| SCCT 412 | Innovative Chemical Sensors              | 3 (3-0-6) |
| SCCT 423 | Green Chemistry                          | 3 (3-0-6) |
| SCCT 424 | Molecular Assembly and Applications      | 3 (3-0-6) |
| SCCT 443 | Inorganic Chemistry in Industry          | 2 (2-0-4) |
| SCCT 461 | Plastics Technology for Sustainability   | 2 (2-0-4) |
| SCCT 462 | Through the Rubber World                 | 2 (2-0-4) |
| SCCT 463 | Composites for the Future                | 2 (2-0-4) |
| SCCT 464 | Product Development                      | 2 (2-0-4) |
| SCCT 465 | Keys to Surface and Coating innovation   | 2 (2-0-4) |