

# College of Computer Studies (CCS)

**Bachelor of Science in Computer Science (BSCS) with specialization in Artificial Intelligence**

Effective School Year 2024-2025 | Based on CMO No. 25 series of 2015

Student's ID Number: \_\_\_\_\_

Date Started / First Enrolled: \_\_\_\_\_

Student's Full Name: \_\_\_\_\_

Expected Date of Graduation: \_\_\_\_\_

## I - FIRST YEAR

| 1            | Grade | Course Code  | Descriptive Title                        | Units |     |       | Pre-requisite /Remarks |
|--------------|-------|--------------|------------------------------------------|-------|-----|-------|------------------------|
|              |       |              |                                          | lec   | lab | total |                        |
| 1st Semester |       | ENTREP101    | The Entrepreneurial Mind                 | 3     | 3   |       |                        |
|              |       | SOCIO 101    | The Contemporary World                   | 3     | 3   |       |                        |
|              |       | HUM 101      | Art Appreciation                         | 3     | 3   |       |                        |
|              |       | MATH 101     | Mathematics in the Modern World          | 3     | 3   |       |                        |
|              |       | CC-INTCOM11  | Introduction to Computing                | 3     | 3   |       |                        |
|              |       | CC-COMPROG11 | Computer Programming 1                   | 2     | 1   | 3     |                        |
|              |       | PE 101       | Movement Competency Training (PATHFit 1) | 2     | 2   |       |                        |
|              |       | NSTP 101     | Nat'l Service Training Program 1         | 3     | 3   |       |                        |
| Total        |       |              |                                          | 23    |     |       |                        |

| 2            | Grade | Course Code  | Descriptive Title                             | Units |     |       | Pre-requisite /Remarks |
|--------------|-------|--------------|-----------------------------------------------|-------|-----|-------|------------------------|
|              |       |              |                                               | lec   | lab | total |                        |
| 2nd Semester |       | PSYCH 101    | Understanding the Self                        | 3     | 3   |       |                        |
|              |       | ENGL 101     | Purposive Communication                       | 3     | 3   |       |                        |
|              |       | HIST 101     | Readings in Philippine History                | 3     | 3   |       |                        |
|              |       | CC-COMPROG12 | Computer Programming 2                        | 2     | 1   | 3     | CC-COMPROG11           |
|              |       | CS-DISCRET12 | Discrete Structures 1                         | 3     | 3   |       | CC-INTCOM11, MATH 101  |
|              |       | CC-TWRITE12  | Tech. Writing & Presentation Skills in IT     | 3     | 3   |       | ENTREP101, CC-INTCOM11 |
|              |       | PE 102       | Exercise-based Fitness Activities (PATHFit 2) | 2     | 2   |       | PE 101                 |
|              |       | NSTP 102     | Nat'l Service Training Program 2              | 3     | 3   |       | NSTP 101               |
| Total        |       |              |                                               | 23    |     |       |                        |

## II - SECOND YEAR

| 3            | Grade | Course Code  | Descriptive Title                        | Units |     |       | Pre-requisite /Remarks     |
|--------------|-------|--------------|------------------------------------------|-------|-----|-------|----------------------------|
|              |       |              |                                          | lec   | lab | total |                            |
| 1st Semester |       | STS 101      | Science, Technology & Society            | 3     | 3   |       |                            |
|              |       | RIZAL 101    | Life, Works & Writings of Dr. Jose Rizal | 3     | 3   |       |                            |
|              |       | CS-DISCRET21 | Discrete Structures 2                    | 3     | 3   |       | CS-DISCRET12               |
|              |       | CC-DASTRUC21 | Data Structures & Algorithms             | 2     | 1   | 3     | CC-COMPROG12               |
|              |       | CC-QUAMETH21 | Quantitative Methods w/ Prob. & Stat.    | 3     | 3   |       | CS-DISCRET12               |
|              |       | CS-DIFFCAL21 | Differential Calculus                    | 3     | 3   |       | CS-DISCRET12               |
|              |       | CS-OOPROG21  | Object Oriented Programming              | 2     | 1   | 3     | CC-COMPROG12               |
|              |       | AI-EL_FUNDAI | Fundamentals of Artificial Intelligence  | 2     | 1   | 3     | CS-DISCRET12, CC-COMPROG12 |
|              |       | PE 103       | Sports and Dance (PATHFit 3)             | 2     | 2   |       | PE 102                     |
| Total        |       |              |                                          | 26    |     |       |                            |

| 4            | Grade | Course Code   | Descriptive Title                         | Units |     |       | Pre-requisite /Remarks |
|--------------|-------|---------------|-------------------------------------------|-------|-----|-------|------------------------|
|              |       |               |                                           | lec   | lab | total |                        |
| 2nd Semester |       | SOCIO 102     | Gender and Society                        | 3     | 3   |       |                        |
|              |       | PHILO 101     | Ethics                                    | 3     | 3   |       |                        |
|              |       | CC-DIGILOG22  | Digital Logic Design                      | 2     | 1   | 3     | CS-DISCRET21           |
|              |       | CC-APPSDEV22  | Applications Dev't & Emerging Tech.       | 2     | 1   | 3     | CC-DASTRUC21           |
|              |       | CS-DAALGO22   | Design and Analysis of Algorithms         | 2     | 1   | 3     | CC-DASTRUC21           |
|              |       | CC-DATACOM22  | Data Communications                       | 2     | 1   | 3     | CC-INTCOM11            |
|              |       | CS-INTCALC22  | Integral Calculus                         | 3     | 3   |       | CS-DIFFCAL21           |
|              |       | AI-FRE_KNWREP | Knowledge Representation and Reasoning    | 3     | 3   |       | AI-EL_FUNDAI           |
|              |       | PE 104        | Sports, Outdoor and Adventure (PATHFit 4) | 2     | 2   |       | PE 103                 |
| Total        |       |               |                                           | 26    |     |       |                        |

## III - THIRD YEAR

| 5            | Grade | Course Code  | Descriptive Title                           | Units |     |       | Pre-requisite /Remarks     |
|--------------|-------|--------------|---------------------------------------------|-------|-----|-------|----------------------------|
|              |       |              |                                             | lec   | lab | total |                            |
| 1st Semester |       | CS-IMDBSYS31 | Information Management (DB Sys)             | 2     | 1   | 3     | CC-APPSDEV22               |
|              |       | CS-PROGLAN31 | Programming Languages                       | 3     | 3   |       | CS-OOPROG21, CS-DAALGO22   |
|              |       | CS-SDESIGN31 | Software Engineering 1: Analysis and Design | 3     | 3   |       | CC-APPSDEV22               |
|              |       | CC-HCI31     | Human Computer Interaction                  | 3     | 3   |       | CC-APPSDEV22               |
|              |       | CC-RESCOM31  | Methods of Research in Computing            | 3     | 3   |       | CC-QUAMETH21, CC-TWRITE12  |
|              |       | CS-COMORG31  | Comp. Organization & Assembly Lang.         | 2     | 1   | 3     | CC-DIGILOG22               |
|              |       | AI-EL_MLEARN | Machine Learning                            | 2     | 1   | 3     | AI-FRE_KNWREP              |
|              |       | AI-EL_ROBOT  | Robotics                                    | 2     | 1   | 3     | AI-EL_FUNDAI, CC-DIGILOG22 |
| Total        |       |              |                                             | 24    |     |       |                            |

| 6            | Grade | Course Code   | Descriptive Title                           | Units |     |       | Pre-requisite /Remarks     |
|--------------|-------|---------------|---------------------------------------------|-------|-----|-------|----------------------------|
|              |       |               |                                             | lec   | lab | total |                            |
| 2nd Semester |       | LIT 101       | Literatures of the World                    | 3     | 3   |       |                            |
|              |       | CS-AUTOLAN32  | Automata & Language Theory                  | 3     | 3   |       | CS-PROGLAN31               |
|              |       | CS-INFOSEC32  | Information Assurance & Security            | 3     | 3   |       | CS-IMDBSYS31               |
|              |       | CS-SOFTENG32  | Software Engineering 2: Intelligent Systems | 2     | 1   | 3     | CS-SDESIGN31               |
|              |       | CC-GRAPHICS32 | Graphics and Visual Computing               | 2     | 1   | 3     | CC-HCI31                   |
|              |       | CS-OPSYS32    | Operating Systems                           | 3     | 3   |       | CS-COMORG31                |
|              |       | AI-EL_NLP     | Natural Language Processing                 | 2     | 1   | 3     | AI-EL_MLEARN, CS-PROGLAN31 |
|              |       | AI-FRE_NEUNET | Artificial Neural Networks                  | 3     | 3   |       | AI-EL_MLEARN               |
| Total        |       |               |                                             | 24    |     |       |                            |

## IV - FOURTH YEAR

| 7            | Grade | Course Code | Descriptive Title                    | Units |     |       | Pre-requisite /Remarks |
|--------------|-------|-------------|--------------------------------------|-------|-----|-------|------------------------|
|              |       |             |                                      | lec   | lab | total |                        |
| 1st Semester |       | AI-THESIS41 | Thesis 1                             | 2     | 1   | 3     | ***                    |
|              |       | CS-PRACT41  | Practicum                            | 3     | 3   |       | ***                    |
|              |       | AI-EL_AIAPP | Artificial Intelligence Applications | 2     | 1   | 3     | ***                    |
| Total        |       |             |                                      | 9     |     |       |                        |

| 8            | Grade | Course Code | Descriptive Title                | Units |     |       | Pre-requisite /Remarks |
|--------------|-------|-------------|----------------------------------|-------|-----|-------|------------------------|
|              |       |             |                                  | lec   | lab | total |                        |
| 2nd Semester |       | AI-THESIS42 | Thesis 2                         | 2     | 1   | 3     | AI-THESIS41            |
|              |       | CC-PROFIS10 | Professional Issues in Computing | 3     | 3   |       | **                     |
| Total        |       |             |                                  | 6     |     |       |                        |

### SUMMARY OF COURSES

|                                               |                  |
|-----------------------------------------------|------------------|
| General Education Courses                     | 50 units         |
| Core/Common Computing Courses                 | 18 units         |
| Professional CS Courses                       | 72 units         |
| CS Electives/AI-domain Specialization Courses | 21 units         |
| <b>TOTAL</b>                                  | <b>161 UNITS</b> |

#### LEGEND:

- \*\* must finish all 1st year to 2nd year courses  
\*\*\* must finish all 1st year to 3rd year courses