Name: _____ **BASED ON CREDITS**

COMPUTER SCIENCE (Data Science Track), B.S.

122 credits and Three 1-credit PE courses

GENERAL EDUCATION CORE

BASIC REQUIREMENTS
(6 credits and three 1-credit PE Courses)

Composition and Rhetoric
- ☐ EN 103 Composition and Rhetoric I
- ☐ EN 104 Composition and Rhetoric II

Physical Education Courses
- ☐ PE 100
- ☐ PE ____
- ☐ PE ____

MODES OF THINKING (12 credits)

Literature (Select one)
- ☐ EN 110, EN 112, EN 115

Mathematics **(Satisfied by Major – 121)**

Natural Science (Select one)
- ☐ BI 209, BI 210, BI 211, BI 242, CH 209, PH 209

Philosophy
- ☐ PL 109

Social Sciences (Select one)
- ☐ CJ 109, CM 130, EC 209, EC 112, HCM 230, PO 103, PO 109, PS 109, SO 109

CULTURAL LITERACY (18 credits)

Humanities I and II. *Preferably* select a set (e.g., HI 201/202). However, a combination (e.g., PO 201 + HI 214) is acceptable.
- ☐ Hum. I: HI 201, PO 201, HI 213
- ☐ Hum. II: HI 202, PO 202, HI 214, HI 262

Humanities III: Great Works of Art & Music
- ☐ ___ ____

Humanities IV: Great Works of Literature
- ☐ ___ ____

Foreign Language/World Cultures
(Select either two of the same language, any two WC, or one WC and one approved course with international study)
- ☐ ___ ____
- ☐ ___ ____

CHRISTIAN VALUES AND THEOLOGY
(9 credits)

Catholic Theology
- ☐ TH 109

Intermediate Theology (200/300 level TH)
- ☐ TH ____

Values Seminar (CS 475 is recommended)
- ☐ ___ ____

MAJOR (50 credits)

- ☐ CS 115: Introduction to Python – 4 credits
- ☐ CS 211: Object-Oriented Programming – 4 credits
- ☐ CS 222: Data Structures
- ☐ CS 230: Computer Architecture and Hardware
- ☐ CS 280: Introduction to Data Science
- ☐ CS 260: Databases and Data Visualization
- ☐ CS 360: Database Analysis and Design
- ☐ CS 362: Introduction to Machine Learning
- ☐ CS 370: Intro. to Artificial Intelligence
- ☐ CS 420: Special Topics in Data Science
- ☐ CS 453: Senior Coordinating Seminar
- ☐ MA 121: Calculus I
- ☐ MA 122: Calculus II
- ☐ MA 222: Statistical Analysis using R
- ☐ MA 331: Linear Algebra

One Elective chosen from MA or CS courses at 200, 300 or 400 level, excluding MA 260 and CS 475
- ☐ _____

ELECTIVES (27 credits)

- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____

OPTIONAL MINOR

- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____
- ☐ ___ ____

DE SALES UNIVERSITY
Example Plan: COMPUTER SCIENCE (Data Science Track), B. S.

FIRST YEAR

FALL SEMESTER (16 credits and 1-credit PE)
Intro to Python (CS 115) 4 credits
Calculus I (MA 121)
Composition and Rhetoric I (EN 103)
Philosophy MOT (PL 109)
Foreign Language/World Cultures
Lifetime Fitness and Wellness (PE 100)

SPRING SEMESTER (16 credits and 1-credit PE)
Object-Oriented Programming (CS 211) – 4 credits
Databases and Data Visualization (CS 260)
Composition and Rhetoric II (EN 104)
Calculus II (MA 122)
Foreign Language/World Cultures
Physical Education (Activity)

SECOND YEAR

FALL SEMESTER (15 credits and 1-credit PE)
Computer Architecture and Hardware (CS 230)
Data Structures (CS 222)
Introduction to Data Science (CS 280)
Humanities I
Catholic Theology (TH 109)
Physical Education (Activity)

SPRING SEMESTER (15 credits)
Statistical Analysis using R (MA 222)
Intro to Machine Learning (CS 362)
Social Science MOT
Humanities II
Literature MOT

THIRD YEAR

FALL SEMESTER (15 credits)
Intro to Artificial Intelligence (CS 370)
Linear Algebra (MA 333)
Humanities III
Intermediate Theology
Free Elective

SPRING SEMESTER (15 credits)
Special Topics in Data Science (CS 420)
CS Elective
Humanities IV
Natural Science MOT
Free Elective

FOURTH YEAR

FALL SEMESTER (15 credits)
Database Analysis & Design (CS 360)
Values Seminar
Free Elective
Free Elective
Free Elective

SPRING SEMESTER (15 credits)
Senior Coordinating Seminar (CS 453)
Free Elective
Free Elective
Free Elective
Free Elective

A. Koefer, Director of the Academic Success Center
Effective fall, 2022