

# Bachelor of Science in Computer Science COMPUTER SCIENCE

2005-2006 Undergraduate Catalog

## 8-Term Plan

| Freshman Year               |                                  |       |                                   |                                     |        |  |  |
|-----------------------------|----------------------------------|-------|-----------------------------------|-------------------------------------|--------|--|--|
| 1 <sup>st</sup> term        |                                  |       | 2 <sup>nd</sup> term              |                                     |        |  |  |
| CS 126                      | Introduction to Computer Science | 3     | CS 136                            | Software Techniques                 | 3      |  |  |
| MAT 136                     | Calculus I (SAS)                 | 4     | MAT 137                           | Calculus II (FNRQ)                  | 4      |  |  |
| Liberal Studies             |                                  | 3     | ENG 105                           | Critical Reading and Writing (FNRQ) | 4      |  |  |
| Liberal Studies/Diversity * |                                  | 3     | Science Elective With Lab (LS)*** |                                     | 4      |  |  |
| General Elective            |                                  | 1     |                                   |                                     |        |  |  |
| FYE 101                     | First Year Experience            | 1     |                                   |                                     |        |  |  |
|                             | Total unit                       | ts 15 | 1                                 | Total uni                           | its 15 |  |  |

| Sophomore Year       |                                       |          |   |    |  |  |  |
|----------------------|---------------------------------------|----------|---|----|--|--|--|
| 3 <sup>rd</sup> term |                                       |          | 4 <sup>th</sup> term  |    |  |  |  |
| MAT 226              | Discrete Mathematics                  | 3        | CENE 225 / STA 270 Engineering Analysis or Applied Statistics | 3  |  |  |  |
| CS 200               | Introduction to Computer Organization | 3        | CS 249 Data Structures  | 3  |  |  |  |
| Science Elective     | With Lab (SAS) ***                    | 4        | Science Elective **   | 4  |  |  |  |
| Liberal Studies      |                                       | 3        | Liberal Studies/Diversity *                                   | 3  |  |  |  |
|                      |                                       | <u>-</u> | Liberal Studies **  | 3  |  |  |  |
|                      |                                       |          |   |    |  |  |  |
|                      | Total units                           | 13       | Total units   | 16 |  |  |  |

| Junior Year          |                         |             |                      |                     |  |    |  |  |
|----------------------|-------------------------|-------------|----------------------|---------------------|--|----|--|--|
| 5 <sup>th</sup> term |                         |             | 6 <sup>th</sup> term |                     |  |    |  |  |
| CS 315               | Automata Theory         |             | 3                    | CS 396              | Principles Of Languages                      | 3  |  |  |
| CS 386               | Software Engineering    |             | 3                    | CS 480              | Operating Systems                            | 3  |  |  |
| CS 301               | Social & Ethical Issues |             | 1                    | MAT 316 <b>OR</b> M | IAT 362 Linear Algebra or Numerical Analysis | 3  |  |  |
| CS Elective          | ****                    |             | 3                    | CS Elective         | ****   | 3  |  |  |
| CS Elective          | ****                    |             | 3                    | ENG 302W            | Technical Writing                            | 3  |  |  |
| Tech Elective        | ****                    |             | 3                    | Meet with advise    | or prior to enrolling in 7th term            |    |  |  |
|                      |                         | Total units | 16                   |                     | Total units                                  | 15 |  |  |

| Senior Year          |                             |             |                      |                 |                     |             |    |  |  |
|----------------------|-----------------------------|-------------|----------------------|-----------------|---------------------|-------------|----|--|--|
| 7 <sup>th</sup> term |                             |             | 8 <sup>th</sup> term |                 |                     |             |    |  |  |
| CS 421               | Algorithms                  |             | 3                    | CS 486C         | Capstone Experience |             | 5  |  |  |
| CS Elective          | ****                        |             | 3                    | CS Elective     | ****                |             | 3  |  |  |
| CS Elective          | ****                        |             | 3                    | Tech Elective   | ****                |             | 4  |  |  |
| Tech Elective        | ****                        |             | 3                    | Liberal Studies | **                  |             | 3  |  |  |
| Liberal Studies      | **                          |             | 3                    |                 |                     |             |    |  |  |
| Submit graduation    | application during 7th term |             |                      |                 |                     |             |    |  |  |
|                      |                             | Total units | 15                   |                 |                     | Total units | 15 |  |  |

#### **PROGRAM INFORMATION**

A minimum of 120 units are required for this degree.

\*Take a Liberal Studies course that also satisfies a Diversity requirement.

\*\* For ABET Accreditation requirements, 21 units are required in three of the liberal studies distribution blocks (Social and Political Worlds, Aesthetic and Humanistic Inquiry, and Cultural Understanding). At least 6 hours must be completed in two of the three categories.

\*\*\* For Science electives chose one of the following blocks:

- PHY 161/161L, PHY 262/262L & 4 additional units in AST, BIO, CHM, GLG or PHY
- CHM 151/151L, CHM 152/152L & 3 additional units in AST, BIO, CHM, GLG or PHY
- BIO 181/181L, BIO 182 & 4 additional units in AST, BIO, CHM, GLG or PHY (Be aware that BIO 182 is not a liberal studies course, so the additional science course must be an approved Lab Science or Science/Applied Science course.)

\*\*\*\* CS electives include 18 units of additional CS courses at the 300 level or above. (Other courses, such as MAT or EE may be substituted with the department chair's approval.)

\*\*\*\*\* Technical electives include 10 additional courses from EE, MAT, PHY, CHM or BIO as well as CS courses at the 200 level or above. (Other courses may be substituted with your advisor's approval.)

### **GENERAL INFORMATION**

- This 8-term plan is to be used in conjunction with the academic catalog and degree audit report.
- Honors students complete different requirements to meet NAU's liberal studies program. Students should consult an Honors Program advisor for complete information on fulfilling Honors Liberal Studies requirements.
- Students should see an academic advisor regularly to confirm their academic progress.
- Students must see an academic advisor before enrollment for the 7<sup>th</sup> term in preparation for graduation.
- All students are required to complete at least 120 total units which includes:
  - 35 units of liberal studies courses: http://www4.nau.edu/aio/Articulation/LScourselist.htm
  - 6 units of diversity courses: (3 units in Global & 3 units in Ethnic): The diversity requirement may be fulfilled in any part of the program of study.

http://www4.nau.edu/aio/Articulation/DiversityCourseList/htm

- 30 units of upper division courses (300-400 level), 18 of these units must be taken at NAU
- English placement: <a href="http://www.nau.edu/comp/placement.html">http://www.nau.edu/comp/placement.html</a>
- Math placement: http://www.math.nau.edu/master.html?http://www.math.nau.edu/odin.html

#### **CONTACT INFORMATION**

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