| Dutchess Community College Computer Science A.S. |  |  |  |  | University at Albany Computer Engineering B.S. (Combined Major/Minor) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | Course Title | $\begin{gathered} \hline \text { SUNY Gen } \\ \text { Ed } \\ \hline \end{gathered}$ | Major or Pathway | Credits Granted | Course\# | Equivalent Course Title | $\begin{gathered} \text { SUNY Gen } \\ \text { Ed } \\ \hline \end{gathered}$ | Major or Pathway | Credits Accepted |
| BHS 103 | Social Problems in Today's World | X |  | 3 | ASOC 180 | Social Problems | X |  | 3 |
| CHE 121 | General Chemistry l(Suggested Science Elective) (1) | X | X | 4 | ACHM 120/124 | General Chemistry I/Lab | X | X | 4 |
| CIS 227 | Assembler Language Programming |  |  | 3 | ICSI 010 | Computer Science Elective |  |  | 3 |
| CLP 101 | Career Exploration and Planning (2) |  |  | 3 | ECPY 204 | Principles of Career and Life Planning |  |  | 3 |
| CPS 141 | Introduction to Computer Science Programming |  | X | 4 | ICSI 201 | Introduction to Computer Science |  | X | 4 |
| CPS 142 | Advanced Programming Techniques |  |  | 3 | ICSI 010 | Computer Science Elective |  |  | 3 |
| CPS 231 | Data Structures |  | X | 3 | ICSI 213 | Data Structures |  | X | 3 |
| ENG 101 | English Composition | X |  | 3 | AENG 100Z | Introduction to Analytical Writing | X |  | 3 |
| ENG 102 | English Composition II | X |  | 3 | AENG 010Z | English Elective | X |  | 3 |
| MAT 215 | Linear Algebra | X | X | 3 | AMAT 220 | Linear Algebra | X | X | 3 |
| MAT 221 | Calculus I | X | X | 4 | AMAT 112 | Calculus I | X | X | 4 |
| MAT 222 | Calculus II | X | X | 4 | AMAT 113 | Calculus II | X | X | 4 |
| MAT 223 | Calculus III (Suggested Elective) (1) | X | X | 4 | AMAT 214 | Calculus of Several Variables | X | X | 3 |
| MAT 224 | Differential Equations (Suggested Free Elective) (1) | X | X | 4 | AMAT 311 | Ordinary Differential Equations (2) | X | X | 4 |
| PHY 151 | Engineering Physics I (Suggested Elective) (1) | X | X | 4 | APHY 140/145 | Physics l:Mechanics/Lab | X | X | 4 |
| PHY 152 | Engineering Physics II (Suggested Elective) (1) | X | X | 4 | APHY 150/155 | Physics II: Electromagnetism/Lab | X | X | 4 |
| WFE 101 | Lifetime Wellness and Fitness |  |  | 3 | DPEC 030 | Physical Education Elective |  |  | 3 |
|  | American History | X |  | 3 |  | History Elective | X |  | 3 |
|  | General Education Elective (3) | X |  | 6 |  | SUNY Gen. Ed. Elective | X |  | 6 |
|  |  |  |  |  | Total Credits Eligible for Transfer |  |  |  | 68 |
|  |  |  |  |  | Additional Required and Elective Courses for the Major at UAlbany |  |  |  |  |
|  |  |  |  |  |  | Challenges of the $21^{\text {st }}$ Century | X | X | 3 |
|  |  |  |  |  | AMAT 370 | Probability \& Stats for Engineering Sciences |  | X | 3 |
|  |  |  |  |  | ICEN 140 | Intro to Engineering Design |  | X | 3 |
|  |  |  |  |  | ICEN 150 | Intro to Engineering Analysis |  | X | 3 |
|  |  |  |  |  | ICEN 210 | Discrete Structures |  | X | 3 |
|  |  |  |  |  | ICEN 340 | Digital Logic Design |  | X | 3 |
|  |  |  |  |  | ICEN 350 | Signals and Systems |  | X | 3 |
|  |  |  |  |  | ICEN 353 | Microprocessor Applications |  | X | 3 |
|  |  |  |  |  | ICEN 400 | Operating Systems |  | X | 3 |
|  |  |  |  |  | ICEN 404 | Computer Organization |  | X | 3 |
|  |  |  |  |  | ICEN 415 | Electronics |  | X | 3 |
|  |  |  |  |  | ICEN 416 | Communications I |  | X | 3 |
|  |  |  |  |  | ICEN 430 | Systems Analysis and Design |  | X | 3 |
|  |  |  |  |  | ICEN 440 | Design Lab I |  | X | 3 |
|  |  |  |  |  | ICEN 450 | Design Lab II |  | X | 6 |
|  |  |  |  |  | ICEN 454 | Micro Processor Applications Lab |  | X | 3 |
|  |  |  |  |  | ICSI 333 | Programming - Hardware/Software Interface |  | X | 4 |
|  |  |  |  |  |  | Computer Engineering Electives (4) |  | X | 12 |
|  | Total credits required for degree completion at SUNY Dutchess |  |  | 68 |  | Total Credits Required at UAlbany |  |  | 67 |
| (1)This course is suggested because it meets a requirement for the major at UAlbany upon transfer. <br> (2)This is recommended because CPS 100 does not transfer in for credit. <br> (3)Students will must select a course that meets one of the following General Education Requirements: American History, Western Civilizations, Other World Civilizations, The Arts, or Foreign Languages. <br> (4)Students will select four courses from the following: ICEN 360 , ICEN 370 , ICEN 460 , ICEN 470 , ICEN 480 , ICSI 311, ICSI 402, ICSI 403, ICSI 405, ICSI 410, ICSI 411, or ICSI 418. |  |  |  |  |  | Total Transfer Credits Applied to Program |  |  | 68 |
|  |  |  |  |  |  | Total Credits Required for Degree |  |  | 135 |

A transfer student admitted to the University at Albany who has completed his/her A.A. or A.S. degree will be given credit for meeting SUNY's General Education requirements.

