## B.S. in Computer Science Enhanced Academic Plan

B.S. in Computer Science - CWILT

| Fall Semester 1 | Recommended Courses Interim Semester 1 | Spring Semester 1 | Career Planning and Preparation | R.E.A.L. Experience |
| :---: | :---: | :---: | :---: | :---: |
| COS 100 or 205 Introduction to Programming or Scientific Computing | GES 160 Inquiry Seminar | COS 105 Computer Science 1 | PHASE 1: EXPLORE | Create your R.E.A.L. Portfolio |
| MAT 124M Calculus 1 |  | MAT 125 Calculus 2 | Explore self, careers, \& God's call | Consider joining Sigma Zeta, or another club or ministry of interest |
| GES 130 Christianity Western Culture |  | BIB 101 Introduction to the Bible | Take a Career Assessment | Consider finding a mentor |
| GES 140 Introduction to Wellbeing |  | Second Language (S) course*1 | Research Careers: O*Net, Candid Careers, \& informational interviews w/ Alums |  |
|  |  |  | Gain Experience: Part-time job; Campus Involvement (e.g. student club); Volunteering |  |
| 14 | 3 | 15 |  |  |
| MILESTONES: Consider study abroad options |  |  |  |  |
| Recommended Courses |  |  | Career Planning and Preparation | R.E.A.L. Experience |
|  |  |  |  |  |
| COS 212 Computer Science 2 | THE 201 Christian Theology | $\operatorname{COS} 214$ Computer Architecture | PHASE 182: EXPLORE/EXPERIENCE | Continue adding artifacts and reflections to your R.E.A.L. Portfolio. |
| MAT 241 Discrete Mathematics |  | $\operatorname{COS} 216$ Data Structures and Algorithms | Finalize major if necessary \& begin gaining experience | Consider taking a leadership position with a student club. |
| GES 125 Introduction to the Creative Arts |  | MAT 211 Linear Algebra | Create/update Resume \& Linkedln | Consider going on a spring break mission trip. |
| Laboratory Science (D) course |  | Contemporary Western Life and Thought (L) course | Build professional network (e.g. informational interviews) |  |
|  |  | Elective | Attend Spring Career Fair |  |
|  | - 3 | 16 | Obtain Internship or relevant job by summer |  |
| MILESTONES: Consider doing an online course over the summer |  |  |  |  |
|  Recommended Courses <br> Fall Semester 3 Interim Semester 3 |  | Spring Semester 3 | Career Planning and Preparation | R.E.A.L. Experience |
| COS 301 Operating Systems | Interim Off | COS 386 Data Communications and Computer Networks | PHASE 2: EXPERIENCE | Review your R.E.A.L. Portfolio and prepare to make it public. |
| COS 313 Database Systems |  | COS 389 Artificial Intelligence | Use experiences to narrow down career choice \& develop relevant skills | Consider studying abroad. |
| COS 318 Web Programming |  | Interpreting Biblical Themes (J) course | Participate in Fall \& Spring Recruiting to obtain an internship | Consider applying for a Student Leadership Position in Student Life. |
| MAT 330 Probability and Statistics |  | Cross-Cultural Experience (Z) course | Schedule a Mock Interview | Consider being a TA for a favorite class. |
| World Cultures (U) course  <br>  16 |  | Elective | Explore Grad Schools \& Take Entrance Exams (e.g. GRE) if necessary |  |
|  |  |  | Expand Professional Network |  |
|  | 0 | 12-15 |  |  |
| MILESTONE: A minimum 3.2 GPA in your major is a good goal to strive for |  |  |  |  |
| Recommended Courses |  |  | Career Planning and Preparation | R.E.A.L. Experience |
| $\operatorname{COS} 320$ (fall, odd years) Computer Graphics Programming | COS 450 Humans and Computers | COS 371 (spring, even years) Organization of Programming Lang | PHASE 3: EXECUTE | Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection. |
| COS 477 Software Engineering |  | Science, Technology, and Society (K) course | Execute an effective job or grad school search | Consider mentoring an underclassman. |
| Comparative Systems (G) course |  | Contemporary Christian Issues (P) course | Participate in Fall and Spring Recruiting |  |
| Leisure and Lifetime Sports (Q) course |  | Artistic Experience (A) course | Apply for Graduate School if necessary |  |
| $\begin{array}{\|ll\|}\text { Elective*2 } & \\ & 13-14\end{array}$ |  | Elective*2 | Expand Professional Network |  |
|  |  |  |  |  |
|  | 3 | 12-15 |  |  |
| Total Credits: 122-129 |  |  |  |  |
| *1 Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.) |  |  |  |  |
| 2. Choose one of: MAT 344, MAT 376, or PHY 352/PHY 353 (Note: PHY 352/PHY 353 will require consent of instructor unless prerequisites are satisfied. Please see catalog for details.) |  |  |  |  |
| This program assumes a student will use MAT 124M and GES 334 K to meet the general education Mathematios and Science, Technology, and Society requirements. |  |  |  |  |
| Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.) |  |  |  |  |

## B.S. in Computer Science Enhanced Academic Plan

B.S. in Computer Science - Humanities

| Fall Semester 1 | Recommended Courses <br> Interim Semester 1 | Spring Semester 1 | Career Planning and Preparation | R.E.A.L. Experience |
| :---: | :---: | :---: | :---: | :---: |
| COS 100 or 205 Introduction to Programming or Scientific Computing | GES 147 Humanities II: Renaissance and Reformation | COS 105 Computer Science 1 |  |  |
| MAT 124M Calculus 1 |  | MAT 125 Calculus 2 | PHASE 1: EXPLORE | Consider joining Sigma Zeta, or another club or ministry of |
|  |  |  | Explore self, careers, \& God's call | $\begin{aligned} & \text { Cinsisie } \\ & \text { interest } \end{aligned}$ |
| GES 140 Introduction to Wellbeing |  | GES 244 Humanities III: European Enlightenment and American Culture to 1877 | Take a Career Assessment | Consider finding a mentor |
| GES 145 Humanities I: Greco-Roman through Middle Ages |  | Second Language (S) course*1 | Research Careers: O*Net, Candid Careers, \& informational interviews |  |
|  |  |  | w/ Alums <br> Gain Experience: Part-time job; Campus Involvement (e.g. student |  |
| 14 | 4 | 16 |  |  |
| MILESTONES: Consider study abroad options |  |  |  |  |
| Recommended Courses |  |  |  |  |
|  |  | 2 | Carcer Planming and Preparation | R.EA.L. Experience |
| COS 212 Computer Science 2 | World Cultures (U) course | COS 214 Computer Architecture | PHASE 182: EXPLORE/EXPERIENCE | Continue adding artifacts and reflections to your R.E.A.L. Portfolio. |
| MAT 241 Discrete Mathematics |  | COS 216 Data Structures and Algorithms | Finalize major if necessary \& begin gaining experience | Consider taking a leadership position with a student club. |
| BIB 101 Introduction to the Bible |  | MAT 211 Linear Algebra |  | Consider going on a spring break mission trip. |
| GES 246 Humanities IV: Modern and Contemporary Western Culture |  | Laboratory Science (D) course | Create/update Resume \& Linkedin |  |
|  |  |  | Build professional network (e.g. informational interviews) |  |
|  |  | Leisure and Lifetime Sports (Q) course |  |  |
|  | 3 | 15 | Atend Spring Career fair |  |
|  |  |  | Obtain Internship or relevant job by summer |  |
| MILESTONES: Consider doing an online course over the summer |  |  |  |  |
| Recommended Courses |  |  |  |  |
| Fall Semester 3 | Interim Semester 3 | Spring Semester 3 | Career Planning and Preparation | R.E.A.L. Experience |
| COS 301 Operating Systems | Interim Off | Interpeting Biblical Themes (J) course | PHASE 2: EXPERIENCE | Review your R.E.A.L. Porttolio and prepare to make it public. |
| $\operatorname{Cos} 313$ (fall, even years) Database Systems |  | COS 386 (Spring, odd years) | Use experiences to narrow down career choice \& develop relevant skils | Consider studying abroad. |
| COS 318 Web Programming |  | COS 389 (Spring, odd years) | Participate in Fall \& Spring Recruiting to obtain an intershhip | Consider applying for a Student Leadership Position in Student Life. |
| MAT 330 Probability and Statistics |  | Comparative Systems (G) course |  | Consider being a TA for a favorite class. |
| Contemporary Western Life and Thought (L) course |  | Cross-Cultural Experience (Z) course | Explore Grad Schools \& Take Entrance Exams (e.g. GRE) if necessary |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | 0 | 15 | Expand Professional Network |  |
| MILESTONES: A minimum 3.2 GPA in your major is a good goal to strive for |  |  |  |  |
| Recommended Courses |  |  |  |  |
| ( FOAl Semester 4 | COS 450 (Interim, even years) | Spring Semester 4 | Career Planning and Preparation | R.E.A.L. Experience |
| COS 320 (Fall, odd years) |  | $\operatorname{COS} 371$ (Spring, even years) | PHASE 3: EXECUTE | Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection. |
| $\operatorname{Cos} 477$ (Fall, odd years) |  | Science, Technology, and Society (K) course | Execute an effective job or grad school search | Consider mentoring an underclassman. |
| Electives*2 |  | Contemporary Christian Issues (P) course |  |  |
|  |  |  | Participate in Fall and Spring Recruitio |  |
| Comparative Systems (G) course |  | Artistic Experience (A) cours | Apply for Graduate School if necessary |  |
|  |  | Elective*2 | Expand Professional Network |  |
| 15 | 3 | $3 \quad 12$-15 |  |  |
| Total Credits: 127-130 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| ${ }^{1} 1$ Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.) |  |  |  |  |
| 2. Choose one of: MAT 344, MAT 376, or PHY 352/PHY 353 (Note: PHY 352/PHY 353 will require consent of instructor unless prerequisites are satisfied. Please see catalog for details.) |  |  |  |  |
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