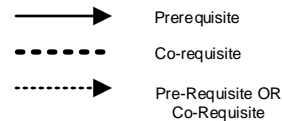
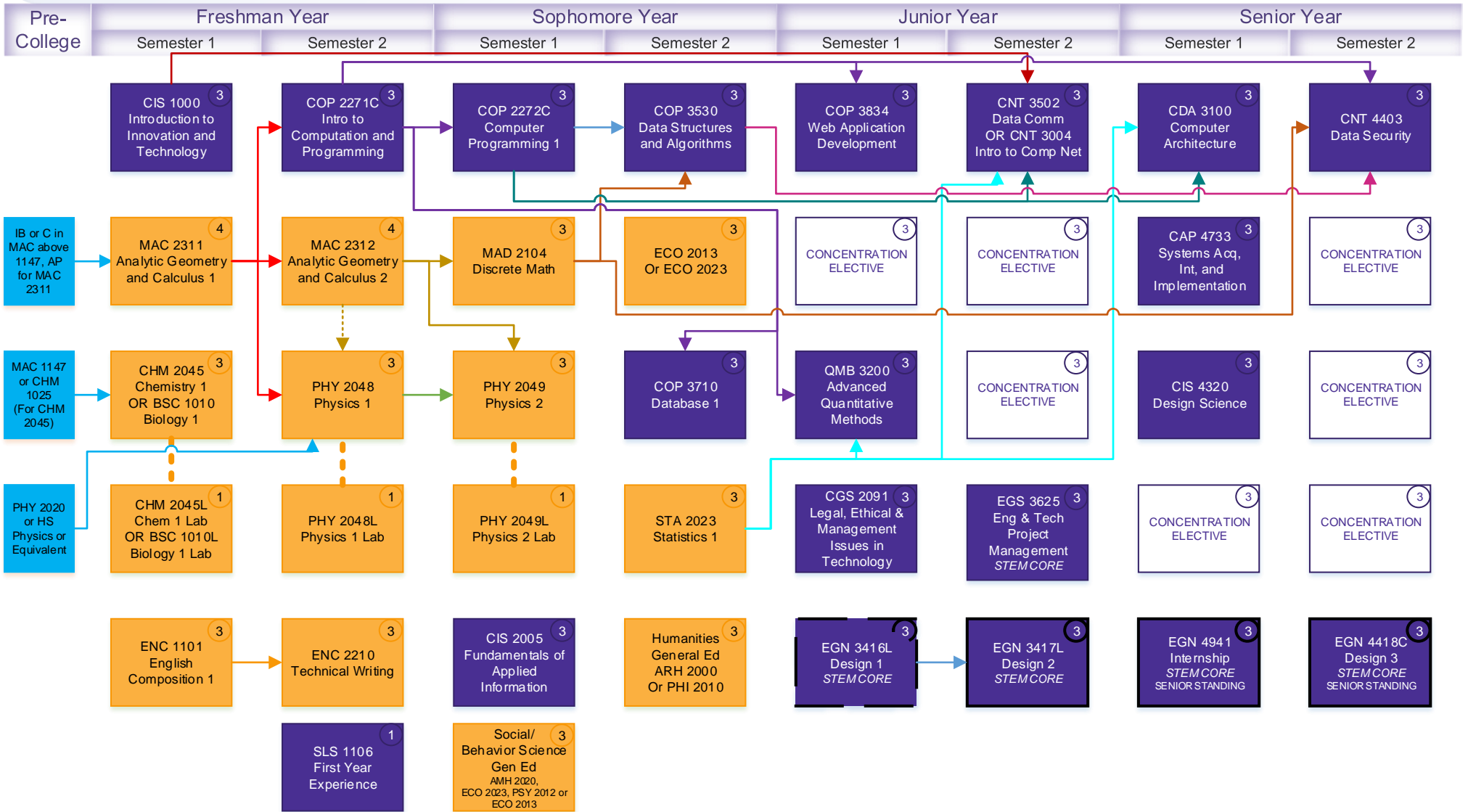
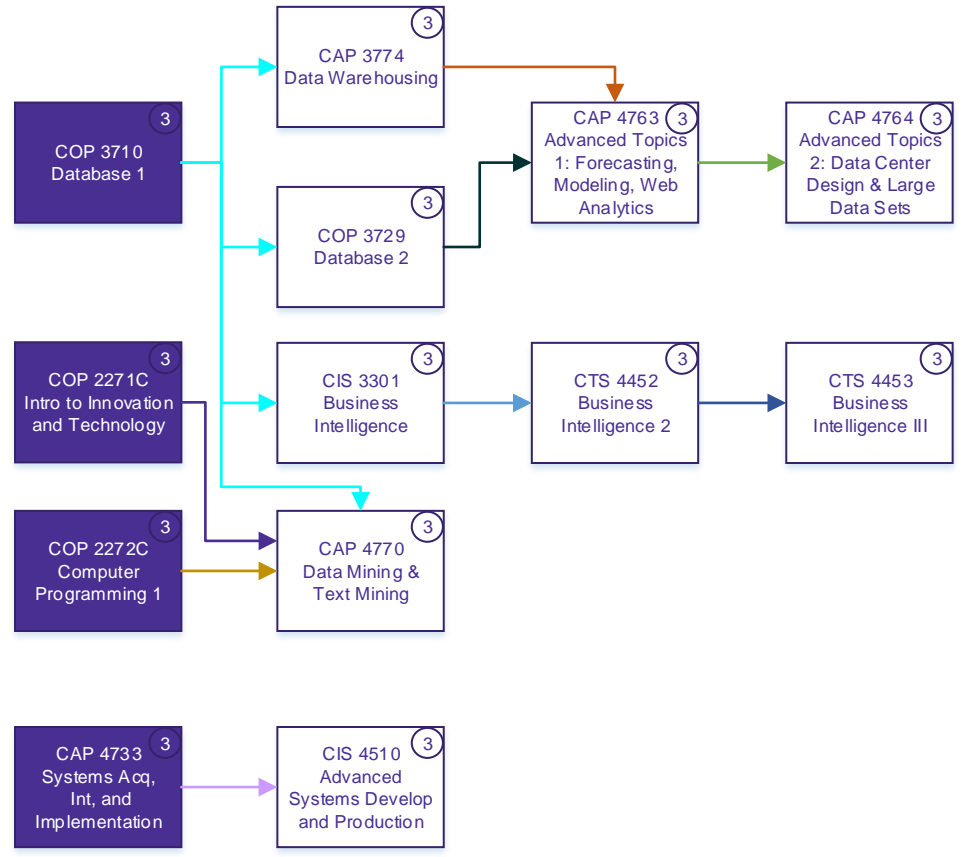


# BS in Advanced Technology Big Data Analytics

2016-2017 Catalog



Program Pre-requisites      Potential Concentration Electives Flow



**Big Data Analytics**

Click here to view the Advanced Technology, B.S.

**Total Degree Credits: 120**

2016-2017 Catalog

**Junior Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CGS 2091 - Legal, Ethical, and Management Issues in Technology	Credits: 3			
COP 3834 - Web Application Development	Credits: 3			
EGN 3416L - Design 1	Credits: 3			
QMB 3200 - Advanced Quantitative Methods	Credits: 3			
<b>Concentration Elective - Credits: 3</b>				

**Total Semester Credits: 15****Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CNT 3004 - Introduction to Computer Networks	Credits: 3			
OR				
CNT 3502 - Data Communication	Credits: 3			
EGN 3417L - Design 2	Credits: 3			
EGS 3625 - Engineering & Technology Project Management	Credits: 3			
<b>Concentration Elective - Credits: 3</b>				
<b>Concentration Elective - Credits: 3</b>				

**Total Semester Credits: 15****Senior Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CAP 4733 - Systems Acquisition, Integration and Implementation	Credits: 3			
CDA 3100 - Computer Architecture	Credits: 3			
CIS 4320 - Design Science	Credits: 3			
EGN 4941 - Internship	Credits: 3			
<b>Concentration Elective - Credits: 3</b>				

**Total Semester Credits: 15****Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CNT 4403 - Data Security	Credits: 3			
EGN 4418C - Design 3	Credits: 3			
<b>Concentration Elective - Credits: 3</b>				
<b>Concentration Elective - Credits: 3</b>				
<b>Concentration Elective - Credits: 3</b>				

**Total Semester Credits: 15****Total Program Credits: 120****Big Data Analytics Concentration Electives**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CAP 3774 - Data Warehousing	Credits: 3			
CAP 4763 - Advanced Topics 1: Forecasting, Modeling, Web Analytics	Credits: 3			
CAP 4764 - Advanced Topics 2: Data Center Design & Large Data Sets	Credits: 3			
CAP 4770 - Data Mining & Text Mining	Credits: 3			
CIS 4510 - Advanced System Development and Production	Credits: 3			
CIS 3301 - Business Intelligence	Credits: 3			
CTS 4452 - Business Intelligence 2	Credits: 3			
CTS 4453 - Business Intelligence III	Credits: 3			
COP 3729 - Database 2	Credits: 3			

**Freshman Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 1000 - Introduction to Innovation and Technology	Credits: 3			
ENC 1101 - English Composition 1: Expository and Argumentative Writing	Credits: 3			
MAC 2311 - Analytic Geometry and Calculus 1	Credits: 4			

**Select 4 credits from the following Natural Science General Ed electives:**

Course Name	Credits:	Term Taken	Grade	Gen Ed
BSC 1010 - Biology 1	Credits: 3			
BSC 1010L - Biology 1 Laboratory	Credits: 1			
CHM 2045 - Chemistry 1	Credits: 3			
CHM 2045L - Chemistry 1 Laboratory	Credits: 1			

**Total Semester Credits: 14****Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 2271C - Introduction to Computation and Programming	Credits: 3			
ENC 2210 - Technical Writing	Credits: 3			
MAC 2312 - Analytic Geometry and Calculus 2	Credits: 4			
PHY 2048 - Physics 1	Credits: 3			
PHY 2048L - Physics 1 Laboratory	Credits: 1			
SLS 1106 - First Year Experience	Credits: 1			

**Total Semester Credits: 15****Sophomore Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 2005 - Fundamentals of Applied Information	Credits: 3			
COP 2272C - Computer Programming 1	Credits: 3			
MAD 2104 - Discrete Mathematics	Credits: 3			
PHY 2049 - Physics 2	Credits: 3			
PHY 2049L - Physics 2 Laboratory	Credits: 1			

**Select 3 credits from the following Social/Behavioral Sciences General Ed electives:**

Course Name	Credits:	Term Taken	Grade	Gen Ed
AMH 2020 - American History Since 1877	Credits: 3			
ECO 2023 - Principles of Microeconomics	Credits: 3			
PSY 2012 - General Psychology	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			

**Total Semester Credits: 16****Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 3530 - Data Structures & Algorithms	Credits: 3			
COP 3710 - Database 1	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			
OR				
ECO 2023 - Principles of Microeconomics	Credits: 3			
STA 2023 - Statistics 1	Credits: 3			

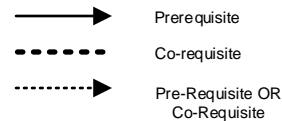
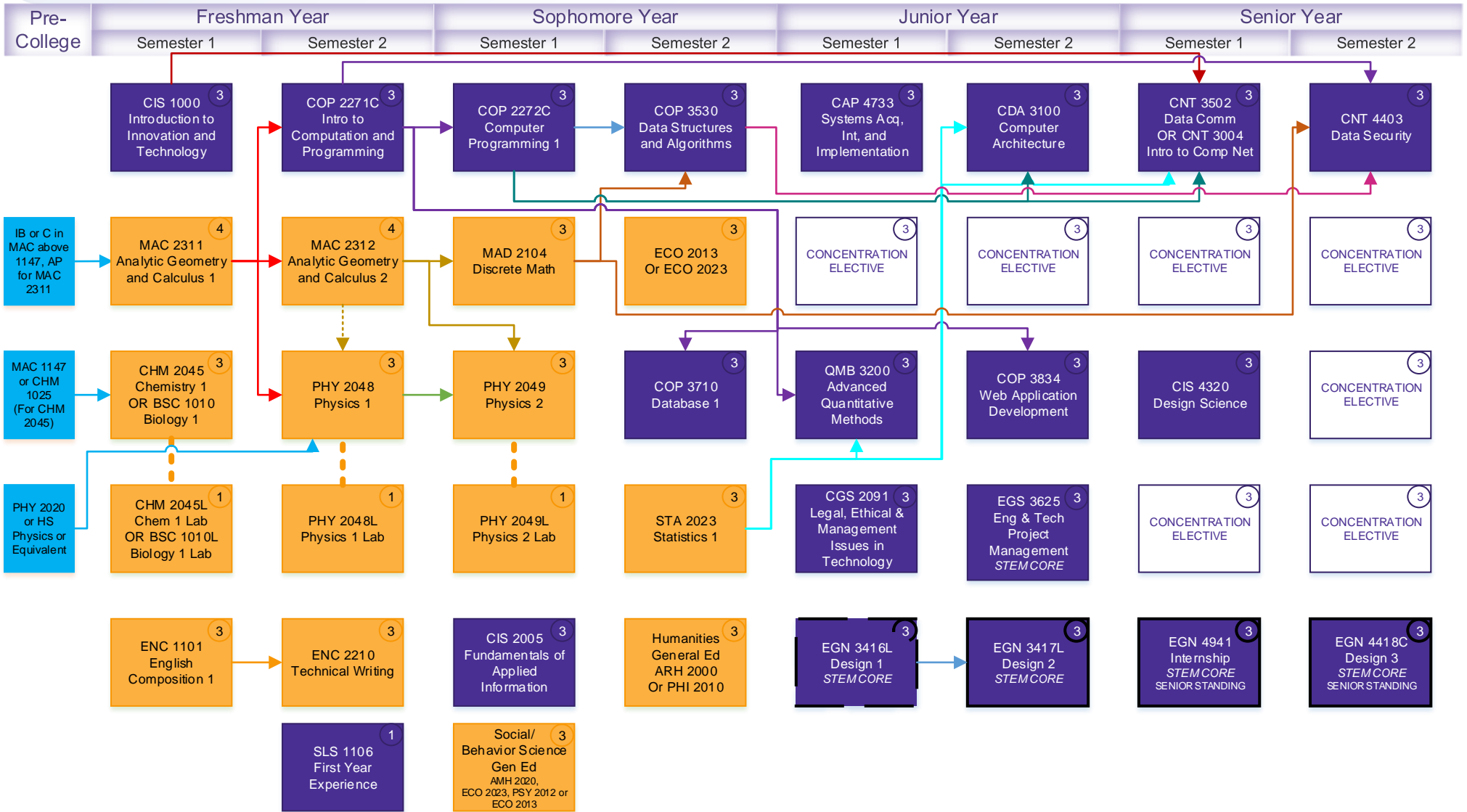
**Select 3 credits from the following Humanities General Ed elective:**

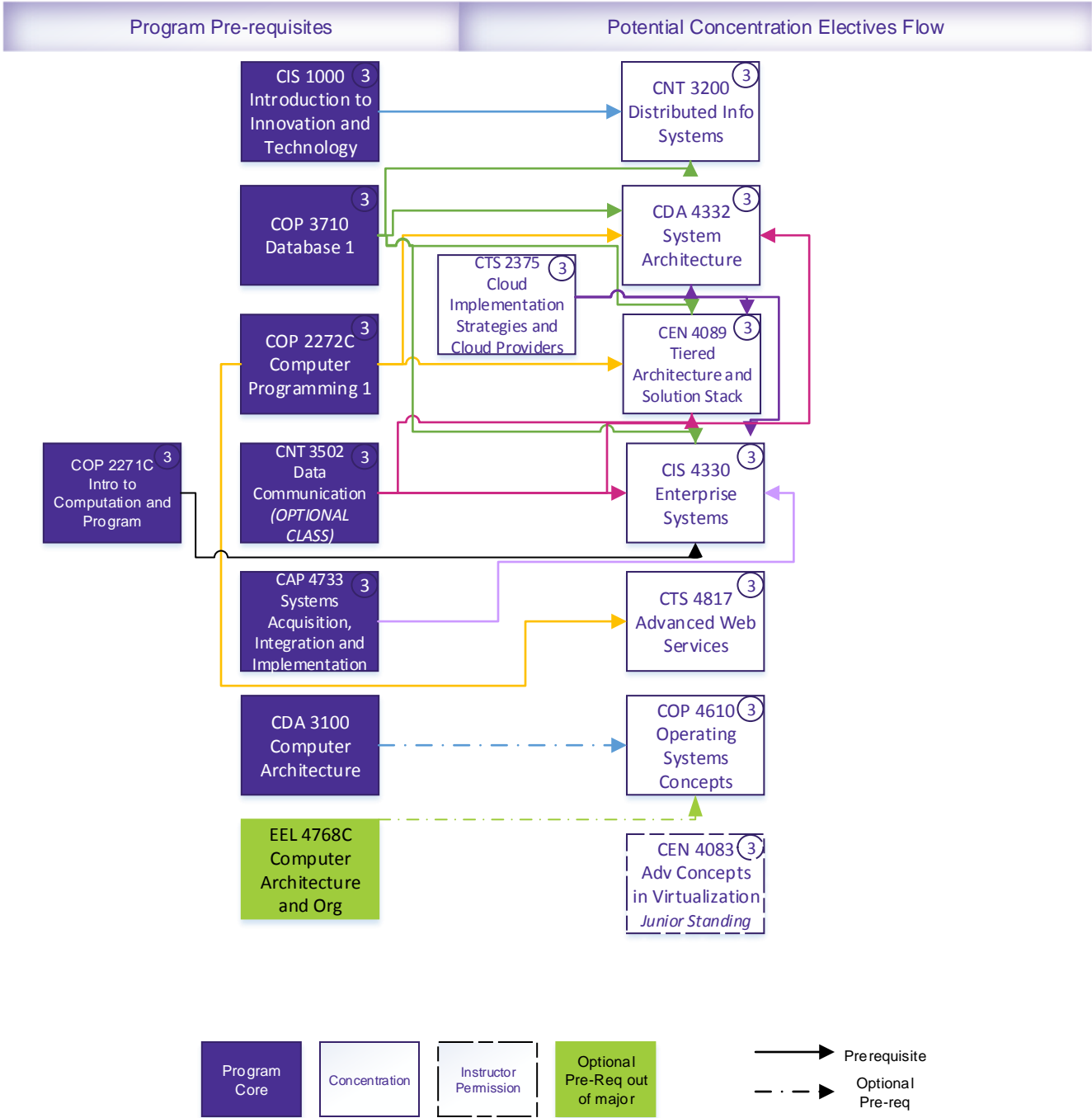
Course Name	Credits:	Term Taken	Grade	Gen Ed
ARH 2000 - Art Appreciation	Credits: 3			
PHI 2010 - Introduction to Philosophy	Credits: 3			

**Total Semester Credits: 15**

# BS in Advanced Technology Cloud Virtualization

2016-2017 Catalog





## Cloud Virtualization

[Click here to view the Advanced Technology, B.S.](#)

2016-2017 Catalog

**Total Degree Credits: 120**

### Freshman Year

#### Semester 1

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 1000 - Introduction to Innovation and Technology	Credits: 3			
ENC 1101 - English Composition 1: Expository and Argumentative Writing	Credits: 3			
MAC 2311 - Analytic Geometry and Calculus 1	Credits: 4			

Select 4 credits from the following Natural Science General Ed electives:

Course Name	Credits:	Term Taken	Grade	Gen Ed
BSC 1010 - Biology 1	Credits: 3			
BSC 1010L - Biology 1 Laboratory	Credits: 1			
CHM 2045 - Chemistry 1	Credits: 3			
CHM 2045L - Chemistry 1 Laboratory	Credits: 1			

**Total Semester Credits: 14**

#### Semester 2

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 2271C - Introduction to Computation and Programming	Credits: 3			
ENC 2210 - Technical Writing	Credits: 3			
MAC 2312 - Analytic Geometry and Calculus 2	Credits: 4			
PHY 2048 - Physics 1	Credits: 3			
PHY 2048L - Physics 1 Laboratory	Credits: 1			
SLS 1106 - First Year Experience	Credits: 1			

**Total Semester Credits: 15**

### Sophomore Year

#### Semester 1

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 2005 - Fundamentals of Applied Information	Credits: 3			
COP 2272C - Computer Programming 1	Credits: 3			
MAD 2104 - Discrete Mathematics	Credits: 3			
PHY 2049 - Physics 2	Credits: 3			
PHY 2049L - Physics 2 Laboratory	Credits: 1			

Select 3 credits from the following Social/Behavioral Sciences General Ed electives:

Course Name	Credits:	Term Taken	Grade	Gen Ed
AMH 2020 - American History Since 1877	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			
ECO 2023 - Principles of Microeconomics	Credits: 3			
PSY 2012 - General Psychology	Credits: 3			

**Total Semester Credits: 16**

#### Semester 2

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 3530 - Data Structures & Algorithms	Credits: 3			
COP 3710 - Database 1	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			
OR				
ECO 2023 - Principles of Microeconomics	Credits: 3			
STA 2023 - Statistics 1	Credits: 3			

Select 3 credits from the following Humanities General Ed elective:

Course Name	Credits:	Term Taken	Grade	Gen Ed
ARH 2000 - Art Appreciation	Credits: 3			
PHI 2010 - Introduction to Philosophy	Credits: 3			

**Total Semester Credits: 15**

### Junior Year

#### Semester 1

Course Name	Credits:	Term Taken	Grade	Gen Ed
CAP 4733 - Systems Acquisition, Integration and Implementation	Credits: 3			
CGS 2091 - Legal, Ethical, and Management Issues in Technology	Credits: 3			
EGN 3416L - Design 1	Credits: 3			
QMB 3200 - Advanced Quantitative Methods	Credits: 3			

**Concentration Elective - Credits: 3**

**Total Semester Credits: 15**

#### Semester 2

Course Name	Credits:	Term Taken	Grade	Gen Ed
CDA 3100 - Computer Architecture	Credits: 3			
COP 3834 - Web Application Development	Credits: 3			
EGN 3417L - Design 2	Credits: 3			
EGS 3625 - Engineering & Technology Project Management	Credits: 3			

**Concentration Elective - Credits: 3**

**Total Semester Credits: 15**

### Senior Year

#### Semester 1

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 4320 - Design Science	Credits: 3			
CNT 3004 - Introduction to Computer Networks	Credits: 3			
OR				
CNT 3502 - Data Communication	Credits: 3			
EGN 4941 - Internship	Credits: 3			

**Concentration Elective - Credits: 3**

**Concentration Elective - Credits: 3**

**Total Semester Credits: 15**

#### Semester 2

Course Name	Credits:	Term Taken	Grade	Gen Ed
CNT 4403 - Data Security	Credits: 3			
EGN 4418C - Design 3	Credits: 3			

**Concentration Elective - Credits: 3**

**Concentration Elective - Credits: 3**

**Concentration Elective - Credits: 3**

**Total Semester Credits: 15**

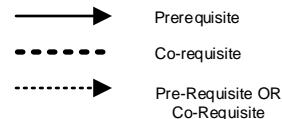
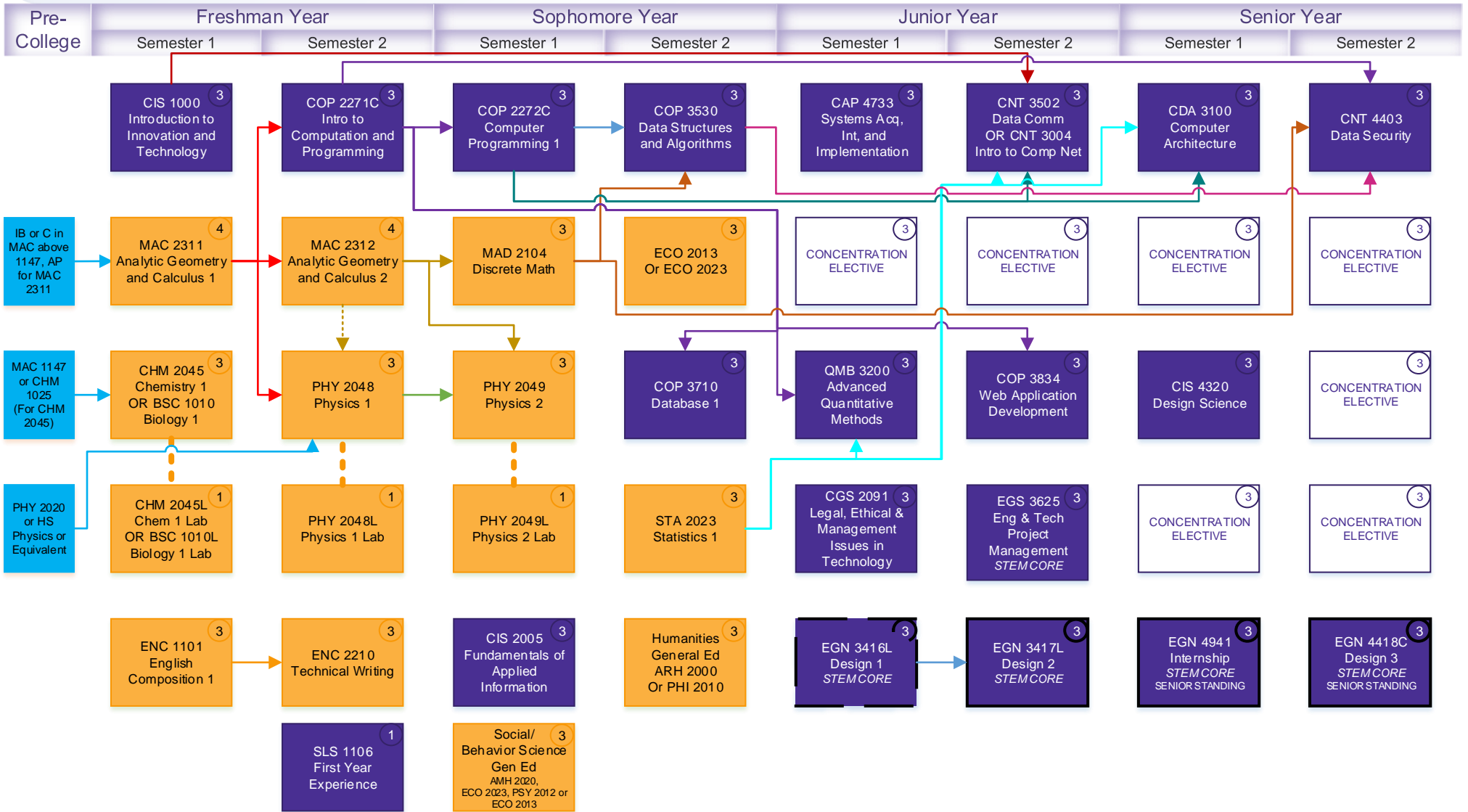
**Total Program Credits: 120**

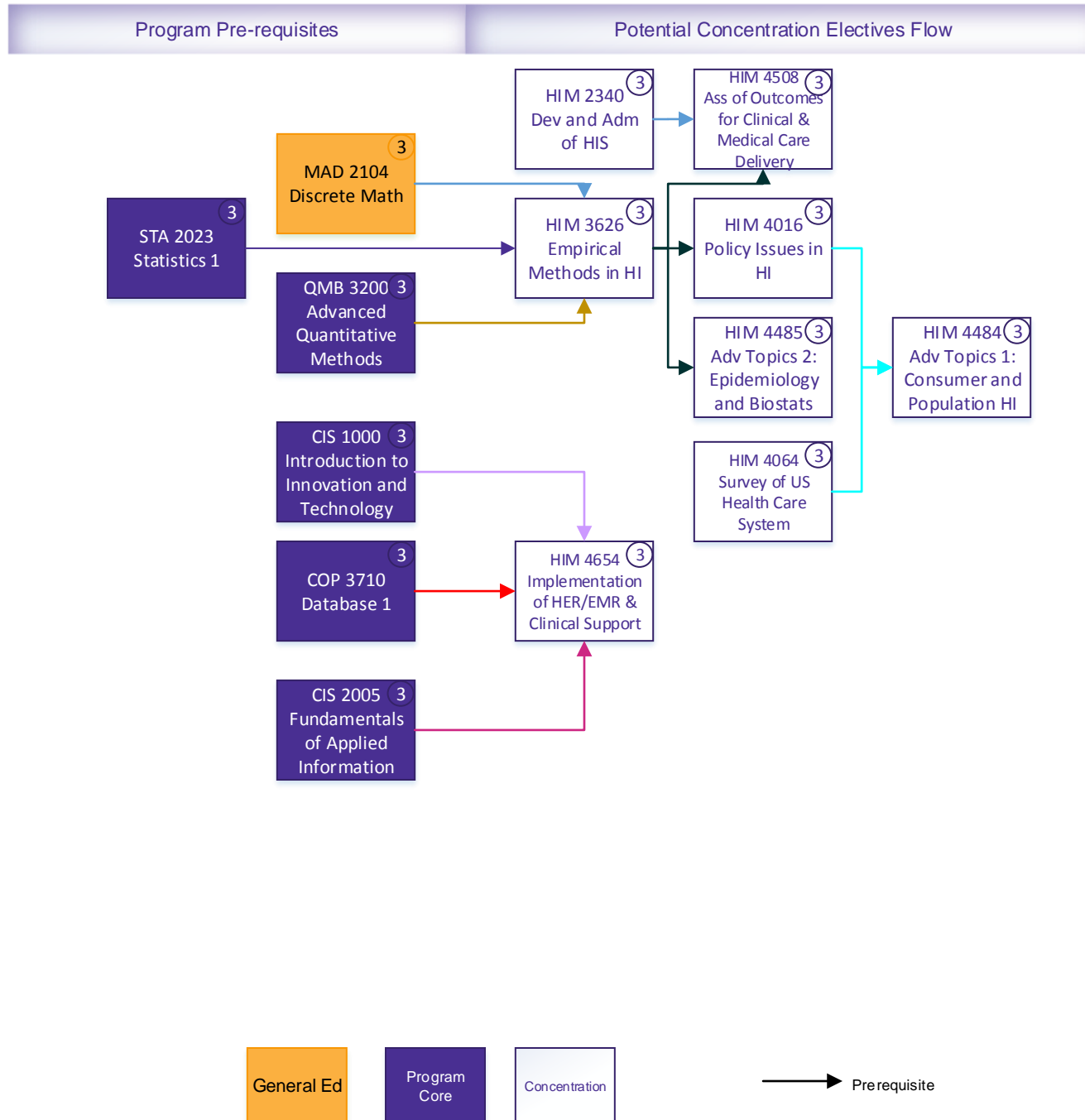
### Cloud Virtualization Concentration Electives

Course Name	Credits:	Term Taken	Grade	Gen Ed
CDA 4332 - System Architecture	Credits: 3			
CEN 4083 - Advanced Concepts in Virtualization	Credits: 3			
CEN 4089 - Tiered Architecture and Solution Stack	Credits: 3			
CIS 4330 - Enterprise Systems	Credits: 3			
CNT 3200 - Distributed Information Systems	Credits: 3			
COP 4610 - Operating Systems Concepts	Credits: 3			
CTS 2375 - Cloud Implementation Strategies and Cloud Providers	Credits: 3			
CTS 4817 - Advanced Web Services	Credits: 3			

# BS in Advanced Technology Health Informatics

2016-2017 Catalog







**Health Informatics**

Total Degree Credits: 120

2016-2017 Catalog

[Click here to view the Advanced Technology, B.S.](#)**Freshman Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 1000 - Introduction to Innovation and Technology	Credits: 3			
ENC 1101 - English Composition 1: Expository and Argumentative Writing	Credits: 3			
MAC 2311 - Analytic Geometry and Calculus 1	Credits: 4			

Select 4 credits from the following Natural Science General Ed electives:

Course Name	Credits:	Term Taken	Grade	Gen Ed
BSC 1010 - Biology 1	Credits: 3			
BSC 1010L - Biology 1 Laboratory	Credits: 1			
CHM 2045 - Chemistry 1	Credits: 3			
CHM 2045L - Chemistry 1 Laboratory	Credits: 1			

Total Semester Credits: 14

**Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 2271C - Introduction to Computation and Programming	Credits: 3			
ENC 2210 - Technical Writing	Credits: 3			
MAC 2312 - Analytic Geometry and Calculus 2	Credits: 4			
PHY 2048 - Physics 1	Credits: 3			
PHY 2048L - Physics 1 Laboratory	Credits: 1			
SLS 1106 - First Year Experience	Credits: 1			

Total Semester Credits: 15

**Sophomore Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CIS 2005 - Fundamentals of Applied Information	Credits: 3			
COP 2272C - Computer Programming 1	Credits: 3			
MAD 2104 - Discrete Mathematics	Credits: 3			
PHY 2049 - Physics 2	Credits: 3			
PHY 2049L - Physics 2 Laboratory	Credits: 1			

Select 3 credits from the following Social/Behavioral Sciences General Ed electives:

Course Name	Credits:	Term Taken	Grade	Gen Ed
AMH 2020 - American History Since 1877	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			
ECO 2023 - Principles of Microeconomics	Credits: 3			
PSY 2012 - General Psychology	Credits: 3			

Total Semester Credits: 16

**Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
COP 3530 - Data Structures & Algorithms	Credits: 3			
COP 3710 - Database 1	Credits: 3			
ECO 2013 - Principles of Macroeconomics	Credits: 3			
OR				
ECO 2023 - Principles of Microeconomics	Credits: 3			
STA 2023 - Statistics 1	Credits: 3			

Select 3 credits from the following Humanities General Ed elective:

Course Name	Credits:	Term Taken	Grade	Gen Ed
ARH 2000 - Art Appreciation	Credits: 3			
PHI 2010 - Introduction to Philosophy	Credits: 3			

Total Semester Credits: 15

**Junior Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CAP 4733 - Systems Acquisition, Integration and Implementation	Credits: 3			
CGS 2091 - Legal, Ethical, and Management Issues in Technology	Credits: 3			
EGN 3416L - Design 1	Credits: 3			
QMB 3200 - Advanced Quantitative Methods	Credits: 3			
Concentration Elective - Credits: 3				

Total Semester Credits: 15

**Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CNT 3004 - Introduction to Computer Networks	Credits: 3			
OR				
CNT 3502 - Data Communication	Credits: 3			
COP 3834 - Web Application Development	Credits: 3			
EGN 3417L - Design 2	Credits: 3			
EGS 3625 - Engineering & Technology Project Management	Credits: 3			
Concentration Elective - Credits: 3				

Total Semester Credits: 15

**Senior Year****Semester 1**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CDA 3100 - Computer Architecture	Credits: 3			
CIS 4320 - Design Science	Credits: 3			
EGN 4941 - Internship	Credits: 3			
Concentration Elective - Credits: 3				
Concentration Elective - Credits: 3				

Total Semester Credits: 15

**Semester 2**

Course Name	Credits:	Term Taken	Grade	Gen Ed
CNT 4403 - Data Security	Credits: 3			
EGN 4418C - Design 3	Credits: 3			
Concentration Elective - Credits: 3				
Concentration Elective - Credits: 3				
Concentration Elective - Credits: 3				

Total Semester Credits: 15

Total Program Credits: 120

**Health Informatics Concentration Electives**

Course Name	Credits:	Term Taken	Grade	Gen Ed
HIM 2340 - Development and Administration of Health Information Systems	Credits: 3			
HIM 3626 - Empirical Methods in Health Informatics	Credits: 3			
HIM 4484 - Advanced Topics 1: Consumer and Population Health Informatics	Credits: 3			
HIM 4485 - Advanced Topics 2: Epidemiology and Biostatistics	Credits: 3			
HIM 4508 - Assessment of Outcomes for Clinical and Medical Care Delivery	Credits: 3			
HIM 4654 - Implementation of EHR/EMR and Clinical Support Methods	Credits: 3			
HIM 4016 - Policy Issues in Health Informatics	Credits: 3			
HIM 4064 - Survey of the US Health Care System	Credits: 3			