

## Lower Division Major Preparation: Transfer Credit Agreement 2016-2017 Catalog

### S.T.E.M. MAJORS (Science, Technology, Engineering, and Mathematics)



Notre Dame de Namur University agrees to accept the City College of San Francisco courses listed below in satisfaction of Lower Division Preparation in the following majors. Please note: You do not need to complete all of these requirements before transferring to Notre Dame de Namur University.

**Lower-division Preparation for the Major.** The undergraduate degree program requires 124 semester units of course credit. The courses shown below constitute all lower-division coursework required for the following majors for this catalog year. For a complete description of lower- and upper-division requirements for the major, please refer to the Notre Dame de Namur University Catalog.























**For further information or to make an appointment with a transfer counselor:** 650.508.3600 NDNU Admissions Office

**Course Descriptions and Major Prerequisites:** <http://www.ndnu.edu/catalog>

**More information on City College of San Francisco:** <http://www.ccsf.edu>















<b>KEY:</b>	C = Completed Course	 = A requirement that may be satisfied by a course taught at the transfer institution
	IP = In Progress Course	 = A requirement for which there is no equivalent course at the transfer institution; or, a course that must be taken at NDNU

### BIOLOGICAL SCIENCES, B.S.

NDNU LOWER-DIVISION MAJOR PREPARATION			CITY COLLEGE OF SAN FRANCISCO EQUIVALENT COURSES				
Course Code	Course Title	Units	Course Code	Course Title	Units	C	IP
BIO 1000	Science Success Seminar	2	N/A	Requirement waived for transfer students.			
BIO 1101/L	General Biology I/Lab	3 + 1	BIO 100B	General Biology	6		
BIO 1103/L	General Biology II/Lab	3 + 1	BIO 100A	General Biology	6		
CHE 1204/L	General Chemistry II/Lab	3 + 1	CHEM 101B	General College Chemistry	5		
MTH 1216	Precalculus with Trigonometry	4	MATH 97	Precalculus	5		
MTH 2502/L	Statistics	3	MATH 80	Probability and Statistics	4		
One of the following courses with lab:			One of the following courses with lab:				
CHE 1200/ L	General, Organic, and Bio Chemistry (3+1)	4	N/A	No equivalent course			
CHE 1202/L	General Chemistry I/Lab (3+1)	4	CHEM 101A	General College Chemistry	5		
Additional coursework highly recommended for future medical, dental, veterinary medicine, or future graduate students			Additional coursework highly recommended for future medical, dental, veterinary medicine, or future graduate students				
PHY 1203/L	College Physics I/Lab	3 + 1	PHYC 2A/L	Introductory Physics/Lab	3 + 1		
PHY 1205/L	College Physics II/Lab	3 + 1	PHYC 2B/L	Introductory Physics/Lab	3 + 1		
MTH 1320	Calculus I	4	MATH 110A	Calculus I	5		

### COMPUTER AND INFORMATION SCIENCE, B.S.

#### Emphasis in Software Engineering

NDNU LOWER-DIVISION MAJOR PREPARATION			CITY COLLEGE OF SAN FRANCISCO EQUIVALENT COURSES				
Course Code	Course Title	Units	Course Code	Course Title	Units	C	IP
CIS 1130	Foundations / Computer Science (4) <b>plus</b>	5	CS 111A <b>plus</b>	Introduction to Programming: Java (4) <b>plus</b>	8		
CIS 1130/L	Programming Laboratory (1)		CS 111B; <b>or</b>	Programming Fundamentals (4); <b>or</b>			
			CS 110A <b>plus</b>	Introduction to Programming C++ (4) <b>plus</b>			
			CS 110B	Programming Fundamentals: C++ (4)			
CIS 1140	Data Structure and Abstraction	4	CS 111C <b>or</b>	Data Structure and Algorithms: Java (4) <b>or</b>	4		
			CS 110C	Data Structure and Algorithms: C++ (4)			
MTH1320	Calculus I	4	MATH 110A	Calculus I	5		
MTH1321	Calculus II	4	MATH 110B	Calculus II	5		
MTH2522	Probability and Statistics	4	N/A	No equivalent course			
CIS1150*	Computer Organization (4)*		CS 270	Computer Arch with Assembly Language	3		

\* Select four additional courses from the list of approved Computer and Information Science courses in the NDNU catalog; among these courses, one option is the lower-division CIS 1150.

You do not need to complete all of these GE or Major Requirements before transferring to Notre Dame de Namur University.

## Emphasis in Management Information Systems

NDNU LOWER-DIVISION MAJOR PREPARATION			CITY COLLEGE OF SAN FRANCISCO EQUIVALENT COURSES				
Course Code	Course Title	Units	Course Code	Course Title	Units	C	IP
CIS 1130	Foundations / Computer Science (4) <b>plus</b>	5	CS 111A <b>plus</b>	Introduction to Programming: Java (4) <b>plus</b>	8	<input type="checkbox"/>	<input type="checkbox"/>
CIS 1130/L	Programming Laboratory (1)		CS 111B; <b>or</b>	Programming Fundamentals (4); <b>or</b>		<input type="checkbox"/>	<input type="checkbox"/>
			CS 110A <b>plus</b>	Introduction to Programming C++ (4) <b>plus</b>			
			CS 110B	Programming Fundamentals: C++ (4)			
CIS 1140	Data Structure and Abstraction	4	CS 111C <b>or</b>	Data Structure and Algorithms: Java (4) <b>or</b>	4	<input type="checkbox"/>	<input type="checkbox"/>
			CS 110C	Data Structure and Algorithms: C++ (4)			
BUS 1000	Foundations of Business	3	GNBS 119	Introduction to Business	3	<input type="checkbox"/>	<input type="checkbox"/>
MTH1322	Applied Calculus	4	MATH 100A	Short Calculus I	3	<input type="checkbox"/>	<input type="checkbox"/>
MTH2502	Statistics	3	MATH 80	Probability and Statistics	4	<input type="checkbox"/>	<input type="checkbox"/>
MTH2502/L	Excel for Statistics	1	N/A	No equivalent course		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## HEALTH SCIENCES, B.S.

NDNU LOWER-DIVISION MAJOR PREPARATION			CITY COLLEGE OF SAN FRANCISCO EQUIVALENT COURSES				
Course Code	Course Title	Units	Course Code	Course Title	Units	C	IP
BIO 1000	Science Success Seminar	2	N/A	Requirement waived for transfer students.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CHE 1200/L	General, Organic, and Biological Chemistry / Lab (3 + 1)	4	CHEM 32	Introduction to Medical Chemistry	4	<input type="checkbox"/>	<input type="checkbox"/>
HSC 1000	Introduction to Health Sciences	3	N/A	No equivalent course		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HSC 1002	Microbes and Diseases	3	MB 10 <b>or</b>	Emerging Diseases (3) <b>or</b>	3-4	<input type="checkbox"/>	<input type="checkbox"/>
			MB 12	Introduction to Microbiology (4)			
HSC 1005/L	Anatomy and Physiology I / Lab (3 + 1)	4	ANAT 25 <b>plus</b>	General Human Anatomy <b>plus</b>	4	<input type="checkbox"/>	<input type="checkbox"/>
HSC 1006/L	Anatomy and Physiology II / Lab (3 + 1)	4	PHYS 12	Introduction to Human Physiology	4	<input type="checkbox"/>	<input type="checkbox"/>
PSY 1001	Introduction to Psychology	3	PSYC 1	General Psychology	3	<input type="checkbox"/>	<input type="checkbox"/>
MTH 2502	Statistics	3	MATH 80	Probability and Statistics	4	<input type="checkbox"/>	<input type="checkbox"/>
MTH 2502L, <b>or</b>	Excel for Statistics (1), <b>or</b>	1	N/A	No equivalent course		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MTH 2503L	SPSS for Statistics (1)		N/A	No equivalent course		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## KINESIOLOGY, B.S.

NDNU LOWER-DIVISION MAJOR PREPARATION			CITY COLLEGE OF SAN FRANCISCO EQUIVALENT COURSES				
Course Code	Course Title	Units	Course Code	Course Title	Units	C	IP
BIO 1101/L	General Biology I/Lab	3 + 1	BIO 100B	General Biology	6	<input type="checkbox"/>	<input type="checkbox"/>
BIO 1103/L	General Biology II/Lab	3 + 1	BIO 100A	General Biology	6	<input type="checkbox"/>	<input type="checkbox"/>
MTH 2502	Statistics	3	MATH 80	Probability and Statistics	4	<input type="checkbox"/>	<input type="checkbox"/>
PSY 1001	Introduction to Psychology	3	PSYC 1	General Psychology	3	<input type="checkbox"/>	<input type="checkbox"/>
One Chemistry course from the following. In the case that a lecture course has a separate lab, the lab course is optional.			One Chemistry course from the following. In the case that a lecture course has a separate lab, the lab course is optional.				
CHE 1101	Introductory Chemistry (3)	3-4	CHEM 40	Introduction Chemical Principles	5	<input type="checkbox"/>	<input type="checkbox"/>
CHE 1202	General Chemistry I (3)		CHEM 101A	General College Chemistry	5	<input type="checkbox"/>	<input type="checkbox"/>
CHE 1202 L	General Chemistry I Lab (1) (optional)						
CHE 1204	General Chemistry II		CHEM 101B	General College Chemistry	5	<input type="checkbox"/>	<input type="checkbox"/>
CHE 1204 L	General Chemistry II Lab (1) (optional)						

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## Careers in S.T.E.M. Fields

The Natural Sciences Department offers Bachelor of Science degrees in Biological Sciences, Health Sciences, and Kinesiology; and minors in Biology, Biochemistry, and Chemistry, as well as an interdisciplinary minor in Environmental Justice. A Postbaccalaureate Premedical Program is also offered. Degrees in the Department lead directly to employment, graduate study, or entrance into professional schools in medicine, pharmacy, dentistry, veterinary medicine, allied health, or education.

The Computer and Information Science Department provides sound preparation for a career as a computer professional or for graduate study. It combines a comprehensive theoretical foundation with the pragmatic aspect of designing and implementing computer-based solutions to practical problems.

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650.508.3600 NDNu Admissions Office

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<http://www.ndnu.edu>   <http://www.ccsf.edu>

Articulation Agreement Updated: September 29, 2016

Approved by: Galen Anne Corson, Articulation Officer, [gcorsen@ndnu.edu](mailto:gcorsen@ndnu.edu)