

Computer Science (120 Hours)

Effective: S2020

Freshman

Sophomore

Junior

Senior

CIS 115 (3) Intro. Comp. Sci	CIS 200 (4) Programming Fund. PR/CO: MATH 205 or 220 PR: CIS 111 or CIS 115 or ECE 241	CIS 300 (3) Data & Pgm Structures PR: CIS 200 PR: MATH 205 or 220	CIS 400 (3) Object-Oriented Design, Imp., & Testing PR: CIS 300	CIS 308 (1) C/C_++ Lang. Lab PR: CIS 300	CIS 450 (3) Comp. Arch & Ops PR: ECE 241 PR/CO: CIS 308	CIS 505 (3) Intro. Prog. Lang.	CIS 520 (3)/ CIS 625 (3) *CIS 520 is offered in the Spring & CIS 625 in the Fall.
ECON 110 (3) Princ. Of Mac. Econ	ECE 241 (3) Intro. Com. Engg PR: MATH 220	CIS 301 (3) Log. Found of Prog. PR: CIS 200	Communications Elective	CIS 415 (3) Ethics & Comp Tech (F) PR: CIS 300	CIS 560 (3) Database System PR: CIS 300, and 301 PR: MATH 312, 510	Tech Elective (3)	Tech Elective (3)
ENGL 100 (3) Writing 1	1 Natural Science Choose Seq. 1 out of 2	2 Natural Science Choose Seq. 2 out of 2	3 Math Elective	CIS 501 (3) SW Arch. & Design PR: CIS 400	CIS 575 (3) Intro to Alg. Analysis PR: CIS 300 and 301 PR: MATH 510	Tech Elective (3)	Unrestricted (3)
MATH 220 (4) Calculus I	MATH 221 (3) Calculus II PR: MATH 220	ENGL 200 (3) Writing 2 PR: ENGL 100	Math 510 (3) Discrete Math PR: MATH 221	Unrestricted (3)	STAT 510 (3) Intro. to Prob. & Stats PR: MATH 221	4 Math/Natural Sci. Elective *300 Level & Above	5 Math/Natural Sci. Elective
COMM 105 (2)/ COMM 106 (3) Public Speaking	Humanities/ Social Science Elective (3)	Humanities/ Social Science Elective (3)	Humanities/ Social Science Elective (3)	Humanities/ Social Science Elective (3)	ENGL 516 (3)/ ENGL 415 (3) Writing Comm. for Sci./Engg. PR: ENGL 200	Unrestricted (3)	Humanities/ Social Science Elective (3)
CIS 015 (0) Undergrad Seminar			CIS 018 (0) Professional Development Seminar	CIS 018 (0) Professional Development Seminar	CIS 018 (0) Professional Development Seminar	CIS 018 (0) Professional Development Seminar	CIS 018 (0) Professional Development Seminar

Advisor: _____ Student ID: _____



This course is a part of the
pre-professional Program



This course is a part of the
professional Program

Rules for Mathematics and Science Electives

Math/Science Electives (17 Hours)

1

2

One of the following 2- semester sequences must be included:

BIOL 198 and 201 (9 Hours)
CHM 210 and 230 (8 Hours)
PHYS 213 and 214 (10 Hours)
PHYS 223 and 224 (10 Hours)

3

One of the following mathematics courses must be included:

MATH 222 Analytic Geometry and Calculus III (4)
MATH 340 Elementary Differential Equations (4)
MATH 506 Introduction to Number Theory (3)
MATH 511 Introduction to Algebraic Systems (3)
MATH 512 Introduction to Modern Algebra (3)
MATH 515 Introduction to Linear Algebra (3)
MATH 551 Applied Matrix Theory (3)
MATH 572 Foundations of Geometry (3)
MATH 633 Advanced Calculus I (3)
STAT 511 Introductory Probability and Statistics II (3)

4

5

All remaining hours, choose from the following:

BIOCH 625 Introductory Organic & Biochemistry (5)
BIOCH 521 General Biochemistry (3)
BIOL 198 Principles of Biology (4)
BIOL 201 Organismic Biology (5)
BIOL 450 Modern Genetics (4)
BIOL 455 General Microbiology (4)
CHM 210 Chemistry I (4)
CHM 230 Chemistry II (4)
CHM 350 General Organic Chemistry (3)
CHM 531 Organic Chemistry I (3)
CHM 371 Chemical Analysis (4)
CHM 550 Organic Chemistry II (3)
GEOL 100 Earth in Action (3)
GEOL 102 Earth in Time (3)
GEOL 103 Geology Laboratory (1)
GEOL 502 Mineralogy (3)

MATH 222 Analytic Geometry and Calculus III (4)
MATH 340 Elementary Differential Equations (4)
MATH 506 Introduction to Number Theory (3)
MATH 551 Introduction to Algebraic Systems (3)
MATH 506 Introduction to Number Theory (3)
MATH 511 Introduction to Algebraic Systems (3)
MATH 512 Introduction to Modern Algebra (3)
MATH 515 Introduction to Linear Algebra (3)
MATH 551 Applied Matrix Theory (3)
MATH 572 Foundations of Geometry (3)
MATH 633 Advanced Calculus I (3)
PHYS 113 General Physics (4)
PHYS 213 Engineering Physics I (5)
PHYS 223 Physics I, Mechanics, & Thermodynamics (5)
PHYS 114 General Physics II (4)
PHYS 214 Engineering Physics II (5)
PHYS 224 Physics II, Electromagnetism, and Sound (5)
PHYS 325 Physics III, Relativity, and Quantum Physics (4)
STAT 511 Introductory Probability and Statistics II (3)

Communications Elective Choices

Options:

COMM 322 Interpersonal Communications (3)
COMM 326 Small Group Discussion Methods (3)
MANGT 420 Principles of Management (3)
THTRE 261 Fundamentals of Acting (3)
THTRE 265 Fundamentals of Improvisation (3)

Humanities/Social Science Electives + K-State 8

Human Diversity/ Social Science

Suggestions:

AMETH 160 Intro. to American Ethnic Studies (3)
AMETH 461 Transformative Thought (3)
COMM 420 Gender Communication (3)
GEOG 310 Geography of Kansas (3)
GWSS 105 Intro. to Gender, Women, and Sexuality Studies (3)
LEAD 212 Intro. to Leadership Concepts (3)
MUSIC 420 History of Jazz (3)
SOCIO 211 Intro. to Sociology (3)
THTRE 665 Drama Therapy with Special Populations (3)

Aesthetic Experience & Interpretive Understanding

Suggestions:

ARCH 301 Appreciation of Architecture (3)
COMM 323 Nonverbal Communication (3)
ENGL 270 American Literature (3)
GWSS350 Gender in American Film (3)
GWSS 550 Women and Popular Culture (3)
MUSIC 170 History of Rock and Roll (3)

Historical Perspectives

Suggestions:

AMETH 160 Intro. to American Ethnic Studies (3)
ARCH 301 Appreciation of Architecture (3)
GEOG 310 Geography of Kansas (3)
HIST 151 History in the U.S. to 1877 (3)
HIST 152 History in the U.S. since 1877 (3)
POLSC 115 U.S. Politics (3)
THTRE 270 Intro. to Theatre (3)