



DAVENPORT UNIVERSITY

Bachelor of Science Urban STEM Education Secondary Choice of Concentrations 120 - 126 credits

Foundations of Excellence		30 credits
ACES100	Achieving Career and Education Success	3
HUMN 101	Arts and Culture	3
ENGL 109	Composition	3
ENGL 110	Advanced Composition	3
MATH 120	College Mathematics	3
MATH 150	Pre-Calculus	4
SOSC 201	Diversity in Society	3
HIST 265	Survey of World History	4
HIST270	Survey of American History	4

Undergraduate Urban Education Core		22 credits
UEDU 191	Tutoring in Urban Schools SL	1
UEDU 192	Teacher Assistance Srv Lrn	2
UEDU 260	Developmental Psych Urban Cnxt	3
UEDU 275	Multicultural Teaching Practices	3
UEDU 285	Teaching Diverse Learners	3
UEDU 325	DataDriven Instruction/Crclum	3
UEDU 340	Using Tech to Enhance Learning	3
UEDU 495	Urban STEM Capstone	4

Secondary Science Education Methods		24 credits
UEDU 151	Service Learning - UEDU151-155	0
UEDU 240	Instructional Plans & Delivery	3
UEDU 288	Literacy Methods K-12	3
UEDU 288L	Literacy Methods K-12 Lab	3
UEDU 370	Adv Secondary Science Mtds OR	3
UEDU 371	Secondary Math Instruction Mtds	3
UEDU 374	MTTC Prep Course (Year 3)	3
UEDU 415	Inquiry-Based Urban STEM Mtds	3
UEDU 425	Inquiry-Based STEM Curclm Design	3
UEDU 438	STEM Literacy in Urban Context	3

Choose one of the following concentrations

Secondary Integrated Science Concentration 126 credits		50 credits
BIOL 110	Foundations of Cell Biology	3
BIOL 110L	Foundations of Cell Biology Lab	1



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BIOL 111	Organisms and Populations	3
BIOL 111L	Organisms and Populations Lab	1
BIOL 209	Techniques in Laboratory Sciences	4
BIOL 211	Microbiology	3
BIOL 211L	Microbiology Lab	1
CHEM 160	General Chemistry I	3
CHEM 160L	General Chemistry I Lab	1
CHEM 161	General Chemistry II	3
CHEM 161L	General Chemistry II Lab	1
CHEM 320	Intro to Physical Chemistry	3
CHEM 275	Chemistry Lab Safety	3
CHEM 325	Chem Lab Instruments/Applications	3
PHYS 210	Fundamentals of Physics I	3
PHYS 210L	Fundamentals of Physics I Lab	1
PHYS 220	Fundamentals of Physics II	3
PHYS 220L	Fundamentals of Physics II Lab	1
PHYS 270	Introduction to Meteorology	3
GEOL 120	Astronomy	3
GEOL 140	Physical Geology	3

Chemistry Concentration | 120 credits

36 credits

BIOL110	Foundations of Cell Biology	3
BIOL110L	Foundations of Cell Biology Lab	1
CHEM 160	General Chemistry I	3
CHEM 160L	General Chemistry I Lab	1
CHEM 161	General Chemistry II	3
CHEM 161L	General Chemistry II Lab	1
CHEM 250	Organic Chemistry I	3
CHEM 250L	Organic Chemistry I Lab	1
CHEM 255	Organic Chemistry II	3
CHEM 255L	Organic Chemistry II Lab	1
CHEM 275	Chemistry Laboratory Safety	3
CHEM 310	Biochemistry	3
CHEM 310L	Biochemistry Lab	1
CHEM 320	Introduction to Physical Chemistry	3
CHEM 325	Instrumental Methods & App in the Chemistry Laboratory	3
CHEM 420	Quantitative Analysis	3
Open Electives		8

Biology Concentration | 120 credits

28 credits

BIOL 110	Foundations of Cell Biology	3
BIOL 110L	Foundations of Cell Biology Lab	1
BIOL 111	Organisms and Populations	3

BIOL 111L	Organisms and Populations Lab	1
BIOL 209	Techniques in Laboratory Sciences	4
BIOL 211	Microbiology	3
BIOL 211L	Microbiology Lab	1
BIOL 336	Genetics	4
BIOL 354	Cell and Molecular Biology	3
BIOL 354L	Cell and Molecular Biology Lab	1
BIOL 430	Advanced Microbiology	3
BIOL 430L	Advanced Microbiology Lab	1

Open Electives 16

Math Concentration | 120 credits **31 credits**

MATH 215	Calculus I	4
MATH 216	Calculus II	4
MATH 205	Applied Linear Algebra	4
MATH 250	Discrete Structures	3
MATH 350	Differential Equations with Modeling	4
STAT 220	Introduction to Statistics	3
STAT 322	Inferential Statistics	3
MATH 260	Geometry	3
MATH 440	Math Structures and Proofs	3

Open Electives 13

Physics Concentration | 120 credits **31 credits**

Math 215	Calculus I	4
Math 216	Calculus II	4
PHYS 210	Fundamentals of Physics I	3
PHYS 201L	Fundamentals of Physics I Lab	1
PHYS 220	Fundamentals of Physics II	3
PHYS 220L	Fundamentals of Physics II Lab	1
PHYS 320	Optics	3
PHYS 350	Electricity and Magnetism	3
PHYS 375	Thermodynamics & Modern Physics	3
PHYS 420	Intro to Quantum Physics	3
PHYS 435	Intro to Nuclear Physics	3

Open Electives 13