

### Des Moines Area Community College

### Major: Bioinformatics and Computational Biology

Below are courses recommended for transfer students to take at their community college. This document is not intended to be an all-inclusive list, but a general guideline for students. It is recommended that you speak to an advisor at Iowa State at your earliest sign of wishing to transfer.

*A maximum of 65 credits from a community college may be applied to your degree at Iowa State.*

#### UNIVERSITY REQUIREMENTS

The following courses are University requirements that must be met by all undergraduate students.  
*Completion of the AA degree does not exempt LAS students from these requirements.*

#### English Proficiency

Course Name	DMACC Course Number
Composition I	ENG 105
Composition II	ENG 106
Library and Internet Research	SDV 171

#### U.S. Cultures and Communities / International Perspectives

Students in all majors must complete a three-credit course in U.S. Cultures and Communities, as well as a three-credit course in International Perspectives. Below is a partial listing of courses that satisfy this requirement.

U.S. Cultures and Communities Course Options at DMACC	International Perspectives Course Options at DMACC
<b>PSY 261</b> Human Sexuality <b>SOC 115</b> Social Problems <b>REL 140</b> Religions in America <b>LIT 105</b> Children's Literature <b>HIS 257</b> African American History	<b>ART 101</b> Art Appreciation <b>MUS 100</b> Music Appreciation <b>POL 121</b> International Relations <b>REL 101</b> Survey of World Religions
The full listing of approved U.S. Cultures & Communities courses is at the following website: <a href="https://go.iastate.edu/QGEJCP">https://go.iastate.edu/QGEJCP</a>	The full listing of approved International Perspective courses is at the following website: <a href="https://go.iastate.edu/UCBQQB">https://go.iastate.edu/UCBQQB</a>

#### COLLEGE OF LIBERAL ARTS AND SCIENCES GRADUATION REQUIREMENT FOR WORLD LANGUAGE

LAS students whose first language is English are required to meet college level proficiency in one world language. That requirement can be met by three or more years of high school study in a single world language **OR** by completing the second semester of a college-level world language course. The Department of World Languages and Cultures offers a test-out examination administered each semester. Two semesters of American Sign Language are recognized by Iowa State and will meet the world language requirement. **Students transferring with an AA degree are not exempt from this requirement.**

Have questions? Feel free to reach out to us at [discover\\_las@iastate.edu](mailto:discover_las@iastate.edu)

### LAS GENERAL EDUCATION REQUIREMENTS

Below is a partial list of course options students can take at DMACC. All approved courses can be found here:

<https://go.iastate.edu/RB4J1S>

<p><b>Arts and Humanities</b> Minimum 12 credits</p>	<p><b>ART 101</b> Art Appreciation  <b>LIT 101</b> Intro to Literature  <b>LIT 105</b> Children's Literature  <b>HIS 110</b> West Civ.  <b>HIS 111</b> West Civ.  <b>HIS 151</b> U.S. History to 1877  <b>HIS 152</b> U.S. History since 1877  <b>PHI 105</b> Intro Ethics  <b>REL 101</b> Survey of World Religions</p>
<p><b>Math</b> Minimum 3 credits</p>	<p><b>MAT 110</b> Math for Liberal Arts (Primarily for non-STEM fields)  <b>MAT 121</b> College Algebra  <b>MAT 129</b> Precalculus  <b>MAT 156</b> Statistics  <b>MAT 211</b> Calculus I  <b>MAT 217</b> Calculus II  <b>MAT 219</b> Calculus III</p>
<p><b>Natural Science</b> Minimum 8 credits</p>	<p>*<b>BIO 112</b> General Biol. I w/lab  *<b>BIO 113</b> General Biol. II w/lab  <b>BIO 151</b> Nutrition  <b>BIO 156</b> Human Bio w/lab  <b>BIO 164</b> Essentials Anatomy/Physiology  *<b>BIO 168</b> Anatomy &amp; Phys. I w/lab  *<b>BIO 173</b> Anatomy &amp; Phys. II w/lab  <b>BIO 186</b> Micro w/lab  <b>CHM 105</b> Survey of Chemistry  <b>CHM 122</b> Intro to General Chem  <b>CHM 132</b> Intro to Organic and BioChem  <b>CHM 165 &amp; 175</b> General/Inorganic 1&amp;2  <b>CHM 263 &amp; 273</b> Org Chem 1&amp;2  <b>PHY 106</b> Survey of Physics  <b>PHY 160</b> General Phys. I  <b>PHY 161</b> General Phys. II  <b>PHY 213</b> Classical Phys. I  <b>PHY 223</b> Classical Phys. II    *Recommend all taken in series</p>

<b>Social Sciences</b> Minimum 9 credits	<b>ANT 125</b> Applications of Anthropology <b>ANT 150</b> Global Issues-Local Perspective <b>CRJ 100</b> Intro to Criminal Justice <b>CRJ 200</b> Criminology <b>CRJ 201</b> Juvenile Delinquency <b>ECN 120</b> Prin. of Macroeconomics <b>ECN 130</b> Prin. of Microeconomics <b>JOU 110</b> Intro to Mass Media <b>JOU 115</b> Principles of Journalism <b>JOU 167</b> Principles of Public Relations <b>POL 111</b> American National Gov't <b>PSY 102</b> Human and Work Relations <b>PSY 111</b> Intro to Psychology <b>PSY 121</b> Developmental Psych <b>PSY 251</b> Social Psych <b>SOC 110</b> Intro to Sociology <b>SOC 115</b> Social Problems <b>SPC 122 &amp; 126</b> Interper & Sm Gr Com
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**Graduating with your Associate of Art degree?** Students with 60 transferable credits and an AA degree will have met the general education requirements in the College of Liberal Arts and Sciences and will have achieved junior standing. (2.00 GPA Min.)

MAJOR REQUIREMENTS	
All four-year plans can be found here: <a href="https://go.iastate.edu/4EDCST">https://go.iastate.edu/4EDCST</a>	
Please note that many of your major requirements will be met during your time at Iowa State University. As you consider your transfer, we recommend connecting with an academic advisor at ISU early to be sure the courses you select at your community college fulfill degree requirements.	
The following courses should be considered as part of the coursework while earning an AA Degree at DMACC.	
<b>Bioinformatics and Computational Biology</b>  *An AS degree will allow more of the Science and Math credits toward a Bioinformatics and Computational Biology major. General Education credits can be taken Junior and Senior years.	— MAT 211 — MAT 217 — MAT 219 — CHM 165 — CHM 132 — CHM 263 — BIO 112 — & BIO 113 — PHY 213