ARTICULATION AGREEMENT FORM
Effective: Fall 2021

A. Sending and Receiving Institutions

Sending College: Fiorello H. LaGuardia Community College (LAGCC)
Department: Natural Sciences
Program: Biology
Degree: Associate in Science (A.S.)

Receiving College: John Jay College of Criminal Justice (JJC)
Department: Sciences
Program: Toxicology (B.S.)
Degree: Bachelor of Science (B.S.)

B. Admission and Retention Requirements for Senior College Program

- A.S. Degree with a minimum 2.5 GPA in all math and science coursework and a minimum 2.0 overall GPA
- Passing grade in first year English composition, its equivalent, or a higher-level English course
- Passing grade in a minimum 3-credit college-level, credit-bearing mathematics course

Total transfer credits granted toward the baccalaureate degree: 60

Total additional credits required at the senior college to complete baccalaureate degree: 60

Total credits required to complete the baccalaureate degree: 120

Students transferring to JJC must complete at least 30 credits at JJC, with at least half of the credits in the major program taken at JJC.

C. Summary of Transfer Credits from LAGCC and Credits to be completed at JJC

<table>
<thead>
<tr>
<th>Cell and Molecular Biology, B.S.</th>
<th>Total Credits for the B.S degree</th>
<th>Transfer Credits From LAGCC</th>
<th>Credits to be Completed at JJC</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>42</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>56-63</td>
<td>20</td>
<td>36-43</td>
</tr>
<tr>
<td>Electives</td>
<td>15-22</td>
<td>4</td>
<td>11-18</td>
</tr>
<tr>
<td>Total</td>
<td><strong>120</strong></td>
<td><strong>60</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
# D. Course to Course Equivalencies and Transfer Credit Awarded

<table>
<thead>
<tr>
<th>Course Number &amp; Title</th>
<th>Credits</th>
<th>Course Number &amp; Title</th>
<th>Credits</th>
<th>Credits Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Core</strong>†</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 101 English Composition I</td>
<td>3</td>
<td>ENG 101 Exploration &amp; Authorship-an Inquiry-based Writing Course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing through Literature</td>
<td>3</td>
<td>ENG 102 Disciplinary Investigations-Exploring Writing across the Disciplines</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Select one course from the following:</td>
<td>3-4</td>
<td></td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>MAT 115 College Algebra and Trigonometry</td>
<td>3</td>
<td>MAT 105 College Algebra (fulfilled by either MAT115 or MAT117)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 117 Algebra and Trigonometry</td>
<td>3</td>
<td>MAT 141 Pre-Calculus</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAT 200 Precalculus</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCB 201 General Biology I</td>
<td>4</td>
<td>BIO 103 Modern Biology I</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>13-14</strong></td>
<td><strong>Subtotal</strong></td>
<td><strong>13-14</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Flexible Core</strong>†</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Cultures &amp; Global Issues course</td>
<td>3</td>
<td>World Cultures &amp; Global Issues course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>U.S. Experience In Its Diversity course</td>
<td>3</td>
<td>U.S. Experience In Its Diversity course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Creative Expression course</td>
<td>3</td>
<td>Creative Expression course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Individual and Society course</td>
<td>3</td>
<td>Individual and Society course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Scientific World course</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCB 201 General Chemistry I</td>
<td>4</td>
<td>CHE 103 General Chemistry I</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Select one additional course from the categories above‡</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCC 202 General Chemistry II</td>
<td>4</td>
<td>CHE 104 General Chemistry II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>20</strong></td>
<td><strong>Subtotal</strong></td>
<td><strong>20</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Pathways Total</strong></td>
<td><strong>33-34</strong></td>
<td><strong>Pathways Total</strong></td>
<td><strong>33-34</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Program Core Requirements

<table>
<thead>
<tr>
<th>Course Number &amp; Title</th>
<th>Credits</th>
<th>Course Number &amp; Title</th>
<th>Credits</th>
<th>Credits Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSF 101 First Year Seminar for Natural Sciences</td>
<td>2</td>
<td>SCI 100 First Year Seminar</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SCB 252 Fundamentals of Biotechniques</td>
<td>3</td>
<td>TOX 338 Cellular and Molecular Toxicology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SCB 255 Cell Biology</td>
<td>4</td>
<td>BIO 205 Eukaryotic Cell Biology</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SCB 202 General Biology II</td>
<td>4</td>
<td>BIO 104 Modern Biology II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SCC 251 Organic Chemistry I</td>
<td>5</td>
<td>CHE 201 Organic Chemistry I</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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1 This program has a waiver to list specific courses to complete Common Core requirements.

2 Student can select only two courses from any one discipline. MAT 200 is equivalent to JJC MTH 130, which is the prerequisite for MATH 231 at JJC for students not immediately eligible for MATH 231 via the placement exams.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC 252</td>
<td>Organic Chemistry II</td>
<td>5</td>
<td>CHE 202</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td>4</td>
<td>Free Electives</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>Curriculum Subtotal</td>
<td></td>
<td>27</td>
<td>Curriculum Subtotal</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Total for AS degree</td>
<td></td>
<td>60</td>
<td>Total for AS degree</td>
<td></td>
<td>60</td>
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</tbody>
</table>
E. Remaining Credits for the Baccalaureate Degree in Toxicology

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Courses</strong></td>
<td></td>
</tr>
<tr>
<td>College Option</td>
<td>300 Justice Core</td>
<td>3</td>
</tr>
<tr>
<td>College Option</td>
<td>Learning from the Past or Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Major Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part One: General Science Foundation</strong></td>
<td></td>
</tr>
<tr>
<td>MAT 241</td>
<td>Calculus I</td>
<td>4*</td>
</tr>
<tr>
<td>MAT 301</td>
<td>Probability &amp; Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 101</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 102</td>
<td>College Physics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Part Two: Toxicology Core</strong></td>
<td></td>
</tr>
<tr>
<td>BIO 355</td>
<td>Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>CHE 315</td>
<td>Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>TOX 313</td>
<td>Toxicology of Environmental and Industrial Agents</td>
<td>3</td>
</tr>
<tr>
<td>TOX 425</td>
<td>Techniques of Analytical Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>TOX 426</td>
<td>Analytical and Quantitative Toxicology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>TOX 430</td>
<td>Principles of Pharmacological Toxicology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Part Three: Electives (Choose two courses; one in each category)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Category A: Toxicology Electives</strong></td>
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</tr>
<tr>
<td>TOX 336</td>
<td>Principles of Forensic Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>TOX 338</td>
<td>Cellular and Molecular Toxicology (may be satisfied by SCB 352 at LAGCC)</td>
<td>4</td>
</tr>
<tr>
<td>TOX 340</td>
<td>Clinical Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>TOX 3ZZ</td>
<td>Principles of Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Category B: Biology/Chemistry Electives</strong></td>
<td></td>
</tr>
<tr>
<td>BIO 205</td>
<td>Eukaryotic Cell Biology (may be satisfied by SCB 255 at LAGCC)</td>
<td>3</td>
</tr>
<tr>
<td>BIO 211</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 315</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIO 356</td>
<td>Human Anatomy and Physiology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>BIO 360</td>
<td>Human Pathology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 364</td>
<td>Forensic Pathology</td>
<td>4</td>
</tr>
<tr>
<td>CHE 220</td>
<td>Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHE 361</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 302</td>
<td>Physical Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>0-7</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Part Four: Capstone Course (choose one)</strong></td>
<td></td>
</tr>
<tr>
<td>TOX 401</td>
<td>Capstone Experience in Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>FOS 402</td>
<td>Undergraduate Research Internship</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Major Requirements Subtotal</strong></td>
<td>36-43</td>
<td></td>
</tr>
<tr>
<td><strong>General Electives (Consult with an Advisor )</strong></td>
<td>11-18</td>
<td></td>
</tr>
<tr>
<td><strong>Total Transfer Credits Applied to Program</strong></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits Required after Transfer</strong></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits Required for Degree</strong></td>
<td><strong>120</strong></td>
<td></td>
</tr>
</tbody>
</table>
F. Procedures for reviewing, updating, modifying or terminating agreement:
When any of the programs undergo any changes relevant to this agreement, this articulation agreement will be reviewed and revised as necessary by one or two faculty members of each institution’s department, selected by their respective Chairpersons to represent them.

At the end of academic year the various representatives of each institution as indicated above will review the performance of transfer students to determine if adjustment to, or termination of the articulation agreement, is needed.

This articulation agreement will be publicized on both the LaGuardia Community College and JJC websites. Transfer advisers at LAGCC will promote this agreement with eligible students. The faculty representative from JJC’s B.S. in Toxicology will arrange an annual information session with the LAGCC campus for interested students.
LaGuardia Community College

Dr. Paul Arcario  Date
Provost and Vice President for Academic Affairs

11/30/20

John Jay College of Criminal Justice

Yi Li  Date
Provost and Vice President of Academic Affairs

11/30/20

Dr. Yi Li
Chairperson, Sciences Department

12/01/2020

Dr. Shu-Yuan Cheng  Date
Chairperson, Sciences Department

12/01/20