

**AA TO BS BIOLOGY ARTICULATION AGREEMENT  
BETWEEN  
The DISTRICT BOARD OF TRUSTEES OF MIAMI DADE COLLEGE, FLORIDA  
AND  
UNIVERSITY OF CENTRAL FLORIDA**

This articulation agreement is made by and between The District Board of Trustees of Miami Dade College, Florida ("MDC"), located at 300 NE 2<sup>nd</sup> Avenue, Miami, FL 33132 and the University of Central Florida Board of Trustees ("UCF"), located at 4000 Central Florida Boulevard, Orlando, FL 32816. Collectively, both MDC and UCF shall be referred to as the "Parties".

**A. Purpose**

The purpose of this agreement is to create a seamless academic pathway for students earning an Associate in Arts (A.A.) from MDC to transfer to UCF with junior level standing and pursue a Bachelor of Science (B.S.) in Biology in accordance to the terms and conditions of this articulation.

**B. Provisions**

- i) To participate in this articulation/pathway, students at MDC are encouraged to declare their intended major of choice at UCF with their MDC advisor on or before achieving 30 credit hours. Students are strongly encouraged to follow the A.A. curriculum (see Appendix A – A.A. to B.S. Degree Map) that will map into the B.S. degree at UCF.
- ii) Students must earn an A.A. degree from Miami Dade College
- iii) This agreement does not guarantee admission to UCF or admission to any specific program or major at UCF. Students shall apply for admission to UCF in accordance with the rules, policies, and procedures of UCF in effect at the time of application and within the established deadlines <https://www.ucf.edu/admissions/undergraduate/transfer/>.
- iv) Upon admission to UCF, students participating in this agreement will follow and complete UCF's Biology B.S. requirements.
- v) Students who elect to participate in this agreement will have access to a UCF Biology major advisor, a UCF College of Sciences advisor, and UCF Success Coaches.

**C. Collaborations and Coordination**

Both parties agree to:

- i) Share student success information through annual partnership meetings, faculty roundtable discussions, and inclusion of advisors in UCF's Advising Updates Forum.
- ii) Timely exchange of updated copies of their general undergraduate catalog or links to the catalog and other information which may be helpful in advising students.
- iii) Sharing of syllabi for gateway courses between the two institutions with possible facilitated alignment discussions.
- iv) Data sharing on prospective students and enrolled students in relation to major readiness, progression and persistence.
- v) Share and inform major changes in policy or curricula that directly affect students transferring under the terms of this Agreement and keep each other informed of any changes of policy or curricula that affect those students. Both MDC and UCF will review this Articulation Agreement on a regular basis and make any changes upon mutual agreement, as needed. Such changes will be effective when both UCF and MDC sign the revised document.
- vi) Engage in coordinated programming to include student information sessions and advising/coaching workshops.

#### **D. Term, Termination, and Other Provisions**

- i) This agreement shall commence on November 1, 2022 or on the date of the last signature below, whichever is later and shall terminate on October 31, 2027 unless terminated earlier as provided herein. The agreement may be renewed for additional terms of any length by the mutual written agreement of both parties. Either party may terminate or suspend this Agreement for convenience upon sixty (60) days written notice. Notwithstanding the termination of this Agreement, any students who have applied for transfer from MDC to UCF prior to or during the sixty (60) day period shall be treated as if this Agreement continues to be in effect. This Agreement may also be terminated as provided elsewhere in this Agreement.
- ii) Curriculum changes in the target programs at either institution shall necessitate a review of this agreement to determine if modification of the agreement is required. Curriculum changes by either UCF or MDC must be communicated in writing no later than June 30th of any academic year by individuals listed as contacts for this agreement.
- iii) Notices with respect to rights and obligations of each party hereto shall be provided as follows:
  - For UCF:  
Millican Hall Suite 210  
4365 Andromeda Loop North,  
Orlando, Florida, 32816  
ATTN: Harrison N Oonge, Assistant Dean for Academic Planning, College of Undergraduate Studies  
  
CC  
Michael Johnson, Provost and Executive Vice President for Academic Affairs  
Millican Hall, Room 331  
Orlando, FL 32816-00065
  - For MDC:  
Miami Dade College  
300 N.E. 2nd Avenue., Miami, FL 33132  
ATTN: Philip Giarraffa  
Director of Articulation & Academic Pathways  
pgiarraf@mdc.edu
  - With a copy to:  
Javier A. Ley-Soto, Esq.  
General Counsel  
Miami Dade College  
300 N.E. 2nd Avenue, Room 1453  
Miami, Florida 33132
- iv) In carrying out the responsibilities and obligations of this Agreement, neither party shall be acting as the agent or principal of the other regarding dealings with third parties, including students. Neither party shall have the authority to make any statements, representations, or commitment of any kind or to take any action binding on the other except as provided for herein.

- v) Each party shall maintain its own respective records and documents associated with this Agreement in accordance with the records retention requirements applicable to public records. Each party shall be responsible for compliance with any public records request served upon it pursuant to Chapter 119, Florida Statutes. Each party acknowledges that this Agreement and all attachments thereto are public records. Both parties agree to comply with the applicable provisions of the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) as it pertains to education records for students.
- vi) Each party assumes any and all risks of personal injury and property damage attributable to the negligent acts or omissions of that party and its officers, employees, servants, and agents thereof while acting within the scope of their employment. The parties further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.
- vii) The Parties expressly acknowledge that it is not their intent to create or confer any rights or obligations in or upon any third person or entity under this Agreement. Neither of the Parties intend to directly or substantially benefit a third party by this Agreement. The Parties agree that there are no third-party beneficiaries to this Agreement and that no third party shall be entitled to assert a claim against any of the Parties based upon this Agreement. Nothing herein shall be construed as consent by an agency or political subdivision of the State of Florida to be sued by third Parties in any matter arising out of any contract.
- viii) Neither this Agreement nor any interest herein may be assigned, transferred or encumbered by either party without the prior written consent of the other party.
- ix) Neither party shall be obligated to perform any duty, requirement or obligation under this Agreement if such performance is prevented by fire, hurricane, earthquake, explosion, wars, sabotage, accident, flood, acts of God, strikes, or other labor disputes, riot or civil commotions, or by reason of any other matter or condition beyond the control of either party, and which cannot be overcome by reasonable diligence and without unusual expense.
- x) All pertinent and appropriate state and federal laws regarding the conduct of educational programs are specifically incorporated in this agreement. This Agreement shall be interpreted and construed in accordance with the laws of the State of Florida.

**INTENTIONALLY LEFT BLANK**

This articulation agreement between the District Board of Trustees of Miami Dade College and The University of Central Florida Board of Trustees was executed by the duly authorized representatives of the Parties as of the date of last signature below.

#### Authorized Signatures

The University of Central Florida  
Board of Trustees

District Board Trustees of Miami Dade College,  
Florida

Michael Johnson, PhD                      Date  
Provost and Executive Vice President  
for Academic Affairs

*Malou C. Harrison*                      12/15/22  
Malou C. Harrison (Dec 15, 2022 15:41 EST)

Malou C. Harrison, PhD                      Date  
Executive Vice President & Provost

*Michaela Tomova*                      12/13/22  
Michaela Tomova (Dec 13, 2022 14:37 EST)

Michaela Tomova, EdD                      Date  
Vice Provost for Academic Affairs

Approved to Form and Legal Sufficiency

*LC*  
Leon Saunders (Dec 13, 2022 13:23 EST)

L. Christopher Saunders  
Assistant General Counsel

Appendix A: **Biology Pre-Health Track** Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

UNIVERSITY OF CENTRAL FLORIDA			
Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Lab A: PCB 3044L, PCB 3063L or PCB 4683L	1	Pre-Health Track Required Elective	3
Pre-Health Track Required Elective	3	Pre-Health Track Required Elective	3
General Biology Restricted Elective	3	Pre-Health Track Restricted Elective	3
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>15</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Pre-Health Track Restricted Elective	3
Pre-Health Track Required Elective	4	General Biology Restricted Elective	3
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
<b>Total</b>	<b>12</b>	<b>Total</b>	<b>10</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*For the **Pre-Health Professional Biology Track** the following units are required for each section:

- Required Electives: 9 units
- Restricted Electives: 5 units
- General Biology Electives: 7 units

\*Overall, 22 hours of electives are needed for Biology BS

Appendix B: Biology Ecology Evolutionary Conservation Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

UNIVERSITY OF CENTRAL FLORIDA			
Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Eco, Evol, & Conservation Bio Track Restricted Elective	3	General Biology Restricted Elective	3
Lab A Course: PCB 3044L, PCB 3063L, or PCB 4683L	1	Eco, Evol, & Conservation Bio Track Required Elective	3-4
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>12-13</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Eco, Evol, & Conservation Bio Track Required Elective	3-4
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
Eco, Evol, & Conservation Bio Track Restricted Elective	4	General Biology Restricted Elective	3
<b>Total</b>	<b>12</b>	<b>Total</b>	<b>10-11</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*For the **Ecology, Evolutionary, & Conservation Biology Track** the following courses/units are required for each section:

- Required Electives: 2 courses
- Restricted Electives: 7 units
- General Biology Electives: 5-9 units

\*Overall, 22 hours of electives are needed for Biology BS



Appendix C: **Biology Marine Aquatic** Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

UNIVERSITY OF CENTRAL FLORIDA			
Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Lab A: PCB 3044L, PCB 3063L or PCB 4683L	1	Marine & Aquatic Restricted Elective	3
Marine & Aquatic Restricted Elective	3	General Biology Restricted Elective	3
Marine & Aquatic Restricted Elective	3		
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>12</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Marine & Aquatic Restricted Elective	3
General Biology Restricted Elective	3	Marine & Aquatic Restricted Elective	3
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
<b>Total</b>	<b>11</b>	<b>Total</b>	<b>10</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*For the Biology Marine Aquatic Track the following units are required for each section:

- Required Electives: 3 units
- Restricted Electives: 12 units
- General Biology Electives: 7 units

\*Overall, 22 hours of electives are needed for Biology BS

Appendix D: Biology Plant Sciences Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals – GEP 11	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

UNIVERSITY OF CENTRAL FLORIDA			
Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Lab A: PCB 3044L, PCB 3063L or PCB 4683L	1	Plant Science Restricted Elective – Group A	2
Plant Science Required Elective	3	Plant Science Restricted Elective – Group C	4
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>12</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Plant Science Restricted Elective – Group B	3
Plant Science Restricted Elective – Group B	2	General Biology Restricted Elective	4
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
Plant Science Restricted Elective – Group C	3		
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>11</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*For the Plant Sciences Track the following units are required for each section:

- Required Electives: 3 units
- Restricted Electives – Group A: 1 course/2 units
- Restricted Electives – Group B: 2 courses/5 units
- Restricted Electives – Group C: 7 units
- General Biology Electives: 5 units

\*Overall, 22 hours of electives are needed for Biology BS

Appendix E: **Zoology Pre-Veterinary** Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

UNIVERSITY OF CENTRAL FLORIDA			
Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Lab A: PCB 3044L, PCB 3063L or PCB 4683L	1	Zoo & Pre-Vet Track Restricted Elective	3
Zoo & Pre-Vet Required Elective	3	Zoo & Pre-Vet Track Restricted Elective	3
General Biology Restricted Elective	3		
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>12</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Zoo & Pre-Vet Track Restricted Elective	3
Zoo & Pre-Vet Track Restricted Elective	3	General Biology Restricted Elective	3
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
<b>Total</b>	<b>11</b>	<b>Total</b>	<b>10</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\* For the Zoology & Pre-Veterinarian Science Track the following units are required for each section:

- Required Electives: 3 units
- Restricted Electives: 11 units
- General Biology Electives: 6 units

\*Overall, 22 hours of electives are needed for Biology BS

Appendix F: **Biology General Track** Success Pathway 2+2 Year Graduation Path

Miami Dade College	Cr. Hrs.	UCF Equivalents	Cr. Hrs.
<b>Year One 1<sup>st</sup> Semester</b>			
ENC1101	3	ENC1101	3
MAC1105	3	MAC1105C	3
CGS 1060C**	4	CGS1060C	4
CHM1025*	3	CHM1025	3
SLS1106	1	SLS1106	1
<b>Total</b>	<b>14</b>		<b>14</b>
<b>Year One 2<sup>nd</sup> Semester</b>			
CHM1045	3	CHM2045C – Chemistry Fundamentals	4
CHM1045L	1		
MAC1147	5	MAC1147	5
ENC1102	3	ENC1102	3
AMH2020	3	AMH2020	3
<b>Total</b>	<b>15</b>		<b>15</b>
<b>Year One 3<sup>rd</sup> Semester</b>			
MAC2311	5	MAC2311C – Calculus w/ Analytic Geometry 1	4
CHM1046	3	CHM2046 – Chemistry Fundamentals II	3
CHM1046L	2	CHM2046L – Chemistry Fundamentals Lab	2
<b>Total</b>	<b>10</b>		<b>9</b>
<b>Year Two 1<sup>st</sup> Semester</b>			
BSC2010	3	BSC2010C – Biology I -GEP 12	4
BSC2010L	2		
CHM2210	3	CHM2210 - Organic Chemistry I	3
CHM2210L	2		
SPC1017	3	SPC1017	3
<b>Total</b>	<b>13</b>		<b>10</b>
<b>Year Two 2<sup>nd</sup> Semester</b>			
BSC2011	3	BSC2011C - Biology II	4
BSC2011L	2		
CHM2211	3	CHM2211 Organic Chemistry II	3
CHM2211L	2	CHM 2211L Organic Chemistry Lab	2
PHI2604	3	PHI2604	3
<b>Total</b>	<b>13</b>		<b>12</b>
<b>Year Two 3<sup>rd</sup> Semester</b>			
PHI2010	3	PHI2010	3
PSY2012	3	PSY2012	3
<b>Total</b>	<b>6</b>		<b>6</b>

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Year Three 1st Semester		Year Three 2 <sup>nd</sup> Semester	
PCB 3044 Principles of Ecology	3	STA 2023 Statistical Methods	3
PCB 3063 Genetics	3	PCB 3023 Molecular Cell Biology	3
Lab A: PCB 3044L, PCB 3063L or PCB 4683L	1	General Biology Restricted Elective	3
General Biology Restricted Elective	3	General Biology Restricted Elective	3
General Biology Restricted Elective	3	General Biology Restricted Elective	3
<b>Total</b>	<b>13</b>	<b>Total</b>	<b>15</b>
Year Four 1 <sup>st</sup> Semester		Year Four 2 <sup>nd</sup> Semester	
PCB 4683 Evolutionary Biology	4	Pre-Health Track Restricted Elective	3
General Biology Restricted Elective	4	General Biology Restricted Elective	3
PHY 2053 or PHY 2048	3	PHY 2054 or PHY 2049	3
PHY 2053L or PHY 2048L	1	PHY 2054L or PHY 2049L	1
<b>Total</b>	<b>12</b>	<b>Total</b>	<b>10</b>

\*Students must complete one Lab A course – this course will also apply towards the General Biology Restricted Electives.

\*Students must complete one Lab B course – depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Botany course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*Students must complete one Zoology course - depending on choice, this course will also apply towards the Track Restricted Electives or the General Biology Restricted Electives.

\*For the **General Biology Track** the following units are required for each section:

- General Biology Electives: 22 units

\*Overall, 22 hours of electives are needed for Biology BS