College of Basic and Applied Sciences
2017-2018 Upper Division Form

Student name _____ Student # _____

Major Biology Minor _____

Concentration _____ E-mail _____

Instructions: For students graduating in Fall 2017 or later. ***One (1) copy signed by major and minor advisors should be filed in the Graduation Analysts Office (DSB 120) three semesters before anticipated graduation. An Intent to Graduate form must accompany this form.***

General Studies Area	Course	Semester	Grade	Prerequisites/Notes	Credit Hours
COMMUNICATION (9 hours)	**ENGL 1010**				3
	ENGL 1020			ENGL 1010	3
	COMM 2200				3
HISTORY (6 hours) Choose two: HIST 2010, HIST 2020,HIST 2030					3
					3
HUMANITIES AND/OR FINE ARTS (9 hours) Choose one: ENGL 2020, 2030, or HUM 2610. Choose two with different prefixes: ANTH 2210, ART 1030,1920, DANC 1000, HIST 1010,1020, 1110,1120, MUS 1030, PHIL 1030, THEA 1030					3
					3
					3
MATHEMATICS (3 hours)*	**MATH 1910**			MATH 1730 with a minimum grade of C or Math ACT score of 26.	3 of 4*
NATURAL SCIENCES (8 hours)	**BIOL 1110 & 1111**			Course is also considered part of the major, making a minimum of 42 credits of BIOL courses.	4
	CHEM 1110 & 1111				4
SOCIAL/BEHAVIORAL SCIENCES (6 hours) Choose two (different prefixes): AAS 2100, ANTH 2010, EMC/JOUR/RIM 1020, ECON 2410, ECON 2420, GEOG 2000, GS 2010, HLTH 1530/1531, PS 1010, PS 1005, PSY 1410, RS 2030, SOC 1010, 2010, WGST 2100					3
					3
				Hours Required	41

Major Courses	Course	Semester	Grade	Prerequisites/Notes	Credit Hours
Introduction to the Biology Major	**BIOL 1000**				1
General Biology 1110 (credits counted above)	**BIOL 1110/1111**			MATH 1710 with C- or better or MATH ACT of 19 or higher	(4)
General Biology	**BIOL 1120,/1121**			BIOL 1110/1111	4
Microbiology	**BIOL 2230/2231**			BIOL 1110 & 1120	4
Genetics	**BIOL 3250/3251**			BIOL 1110 & 1120	4
General Ecology	**BIOL 3400/3401**			BIOL 1110, 1120, and CHEM 1110	4
Biology Concentration Courses (see listing)				See Advisor	4
Biology Concentration Courses (see listing)				See Advisor	3-4
Biology Concentration Courses (see listing)				See Advisor	3-4
Biology Upper Division Elective (3000/4000)- See Advisor				See Advisor	1-3
Physiology (select from **BIOL 4110 & 4111, or 4210 & 4211, or 4500)**				See Advisor	4
Evolution	**BIOL 3500**			BIOL 3250	3
Senior Seminar	**BIOL 4200**			BIOL 2230, 3250, 3400, 3500	1
				Hours Required	38 (42)

Revised 2.28.2017

Supporting Electives				
Course	**Semester**	**Grade**	**Prerequisites/Notes**	**Credit Hours**
CHEM 1120 & 1121			CHEM 1110/1111 with a C- or better	4
CHEM 2030/2031 or 3010/3011			CHEM 1110/1111 & 1120/1121	4
MATH 1920, or MATH 2050, or BIOL 4350/4351			See Advisor	3-4
Elective if MATH 2050 is chosen				0-1
Math 1910 (remaining 1 credit from general education)				1
			Hours Required	12-14

Note: Sufficient upper division electives (3000/4000 level) must be earned to meet the 42 required for graduation. At least 120 credit hours must be earned for graduation.

Course	Semester	Grade	Notes	Credit Hours
			Remaining credit hours needed to meet the minimum 120 hour requirement	

Optional Minor				
Course	**Semester**	**Grade**	**Notes**	**Credit Hours**
			Hours Required	

Signed:		
	Minor Advisor	**Date**

1. Degrees require a minimum of 120 semester hours (12 of the last 18 at MTSU) with a 2.0 GPA, a minimum of 42 upper-division hours (30 at MTSU) with a 2.0 GPA, and minimum of 60 senior college hours.
2. Learning Support courses do not count toward the 120-hour requirement or cumulative degree GPA.

Signed:		
	Major Advisor	**Date**

Revised 2.28.2017

Instructions for Upper-Division Forms for Biology

1. This form should be filled out in consultation with your advisor three semesters prior to graduation.
2. An Intent to Graduate Form must accompany the Upper Division Form when submitted to the Graduation Analyst in Jones Hall, room 115.
3. In order to graduate, you must complete at least 120 semester hours of which at least 42 must be in upper division (3000/4000 numbered) courses. At least 60 semester hours must have been taken at a senior (4 year) college/university. A minimum 2.00 GPA in the major, overall, in at least 42 hrs of upper division (3000/4000 level) courses, and in most minors, is required for graduation. Course work awarded from a junior college will not count as upper-division credit even if it is credited on your transcript as a 3000 or 4000 level course. At least one minor is required; a natural science such as chemistry is recommended.
4. If the course prefix and number are not shown, be sure to write them in the "Course" column. In the "Grade" column, write the grade that you received if you have already completed the course, or the semester that you plan on taking the course (for example: F 16, Sp 17, Su 17, etc.). In the Notes column, write in the course you are taking instead of the course listed, or Advanced Placement credit for the course, or transfer credit for the course, (in which case you should list the original course name and number); otherwise, the Notes column should remain blank. See advisor and catalog for options to fulfill specific requirements. If a course previously taken is accepted as a substitution for a course listed, then a Substitution Form must be filled out and approved by Major Advisor and Department Chair and accompany the Upper Division and Intent to Graduate Forms.
5. See the specified MTSU Undergraduate Catalog and the Student Handbook for further details concerning degree requirements for graduation. You are responsible for understanding and fulfilling all degree requirements.

Biology Concentration Lists*

Organismal Biology and Ecology*
Choose at least 10 hours from the following list:
3020 (4) Comp. Anat. Vert. (Fall)
3040 (4) Entomology (Fall, odd)
3050 (3) Parasitology (Spring)
4080 (4) Mycology (Fall, even)
4090 (3) Forest Ecology (Fall)
4140 (4) Invert. Zool. (Spring)
4180 (4) Vert. Zool. (Fall)
4220 (4) Ichthyology (Fall, even)
4330 (var. cr.) Biome Analysis
4390 (4) Ethology (Spring, odd years)
4420 (4) Plant Ecology & Evolution
4570 (3) Principles of Toxicology (Spring, odd)
4580 (4) Marine Biology (Spring, odd)
4590 (4) Principles of Environmental Toxixology
****Students may choose to follow one of the track options described to the right instead of choosing from the list above****

Optional Organismal Biology & Ecology tracks

Optional Organismal Biology & Ecology tracks:

Botany Track: (10 hours)
Choose from BIOL 4080; choose two courses from among the column to the left. Students in this track should take BIOL 4500 (Plant Physiology) as their required Physiology course

Zoology Track: (10 hours)
Choose from BIOL 3020, 3040, 3050, 4140, 4180, 4220, 4390. Students in this track should take BIOL 4110 (General Physiology) as their required Physiology course.

Ecology Track: (10 hours)
Take BIOL 4580 and choose two courses from among the column to the left

General Biology Track: (10 hours)
BIOL 4080
Choose one of the following courses: BIOL 3020 or 4180
Choose one of the following courses: BIOL 3040, 3050, or 4140
*****The General Biology Track satisfies Teacher Education Requirements*****

Genetics & Biotechnology* Required:
4550 (3) Biotechnology (Fall & Spring)
Pick one of the following:
4450 (4) Molecular Genetics (Fall)
4460 (3) Human Genetics (Spring)
Pick one of the following:
4270 (4) Trans. Elec. Microscopy (Spring)
4290 (4) Scan. Elec. Microscopy (Fall)
4300 (4) Immunology (Fall & Spring)
4450 (4) Molecular Genetics (Fall)
4460 (3) Human Genetics (Spring)
4510 (4) Food/Indust. Micro. (Fall)
4570 (3) Prin. Toxicology (Spring, odd)
4720 (4) Animal Development (Spring)
4750 (4) Plant Biotechnology

Physiology*
Choose 10 hrs. from the following list
3010 (4) Embryology (Fall)
3020 (4) Comp. Anat. Vert. (Fall)
3340 (3) Human Pathophysiology
4110 (4) Gen. Physiology (Fall & Spring)+
4130 (4) Histology (Spring)
4170 (3) Endocrinology (Fall, odd)
4210 (4) Cell & Molec. (Fall & Spring)+
4300 (4) Immunology (Fall & Spring)
4440 (4) Gen. Virology (Fall)
4500 (4) Plant Physiology (Spring)+
4560 (4) Neurobiology (Fall, even)
4570 (3) Prin. Toxicology (Spring, odd)
+*only if not used for core requirement*

Microbiology*
Choose 10 hrs. from the following list
3050 (3) Parasitology (Spring)
3210 (3) Environ. Micro. (Spring)
4080 (4) Mycology (Fall, even)
4300 (4) Immunology (Fall & Spring)
4430 (4) Diagnostic Micro. (Fall & Spring)
4440 (4) Gen. Virology (Fall)
4450 (4) Molec. Genet. (Fall)
4510 (4) Food/Indust. Micro. (Fall)
4550 (3) Biotechnology (Fall & Spring)
4730 (4) Microbial Phys. & Biochem. (Spring, even)

*** See advisor or chair for additional options; other Upper Division Biology courses may be substituted.**