College of Basic and Applied Sciences
2014-2015 Upper Division Form

Student name _____ Student # _____

Major Biology Minor _____

Concentration _____ E-mail

Instructions: For students graduating in Fall 2014 or later. *One (1) copy signed by major and minor advisors should be filed in the Graduation Coordinator's Office (JH 115) three semesters before anticipated graduation. An Intent to Graduate form should accompany this form.*

General Studies Area	Course	Semester	Grade	Notes	Credit Hours
COMMUNICATION (9 hours)	ENGL 1010				3
	ENGL 1020				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				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, 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

* If a 4 credit Math course is taken, 3 credits count in General Education and the extra credit counts as Supporting and Elective Courses.

Major Courses	Course	Semester	Grade	Notes	Credit Hours
General Biology 1110 (credits counted above)	BIOL 1110/1111				(4)
General Biology	BIOL 1120,/1121				4
Microbiology	BIOL 2230/2231				4
Genetics	BIOL 3250/3251				4
General Ecology	BIOL 3400/3401				4
Biology Concentration Courses (see listing)					4
Biology Concentration Courses (see listing)					3-4
Biology Concentration Courses (see listing)					3-4
Biology Upper Division Elective (3000/4000)- See Advisor					1-3
Physiology (select from BIOL 4110 & 4111, or 4210 & 4211, or 4500)					4
Evolution	BIOL 3500				3
Senior Seminar	BIOL 4200				2
				Hours Required	38 (42)

Revised 3.10.2014

Supporting and Elective Courses				
Course	Semester	Grade	Notes	Credit Hours
CHEM 1120 & 1121				4
CHEM 2030 & 2031 or 3010 & 3011				4
MATH 1920, or MATH 2050, or BIOL 4350 & 4351				3-4
Elective if MATH 2050 is chosen				0-1
Math 1910 (remaining 1 credit from general education)				1
Electives (sufficient Upper Division electives [3000-4000 level] must be included to add up to 42 total Upper Division credits)				10-13
			Hours Required	23-26

Minor				
Course	Semester	Grade	Notes	Credit Hours
			Hours Required	15-18
			TOTAL HOURS REQUIRED	120

Signed:		
	Minor Advisor	Date

Optional 2nd 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

Student's local address:
to which graduation analysis
information should be sent: _____ Phone: _____

_____

_____

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, F14, Sp 15, Su15). 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) 3030 (4) Non -Flower. Plants (Fall) 3040 (4) Entomology (Fall) 3050 (3) Parasitology (Spring) 4060 (3) Dendrology (Fall) 4080 (4) Mycology (Spring, odd years) 4120 (4) Flower. Plants (Spring) 4140 (4) Invert. Zool. (Spring) 4180 (4) Vert. Zool. (Fall) 4220 (4) Ichthyology (Fall) 4250 (4) Limnology (Spring) 4390 (4) Ethology (Spring, odd years) 4520 (4) Plant Anatomy (Spring) 4570 (3) Principles of Toxicology 4590 (4) Principles of Environmental Toxicology 4580 (4) Marine Biology (Spring) 4700 (3) Plant-Animal interact. (Spring) ****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 3030, 4060, 4080, 4120, 4520, 4700. 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)** Choose at least two courses from BIOL 4250, 4580, 4700 and choose one course from among the column to the left (if only two courses are chosen from those listed here) **General Biology Track: (10 hours)** Choose one of the following courses: BIOL 3020 or 4180 Choose one of the following courses: BIOL 3030, 4080, or 4120 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 (Fall) 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) 4110 (4) Gen. Physiology (Fall & Spring)+ 4130 (4) Histology (Spring) 4170 (3) Endocrinology (Fall) 4210 (4) Cell & Molec. (Fall & Spring)+ 4300 (4) Immunology (Fall & Spring) 4440 (4) Gen. Virology (Fall) 4500 (4) Plant Physiology (Spring)+ 4520 (4) Plant Anatomy (Spring) 4560 (4) Neurobiology (Fall) 4570 (3) Prin. Toxicology (Fall) **+***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) 4300 (4) Immunology (Fall & Spring) 4430 (4) Diagnostic Micro. (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)	*** See advisor or chair for additional options; other Upper Division Biology courses may be substituted.**