

CELL EMPHASIS -- BACHELOR OF SCIENCE IN BIOLOGY (2009-2010 Catalog)

Name _____ Student Number W _____

Supporting courses: A minimum of 37 credits required.			
Course	Qtr/Yr	Credits	Substitute Course #, Name, College/University
Chem 121 – General Chemistry I (5 cr)			
Chem 122 – General Chemistry II (5 cr)			
Chem 123 – General Chemistry III (4 cr)			
Or Honors Chemistry 125, 126, 225 (15 cr) [See #2 on back]			
Chem 351 – Organic Chemistry I (4 cr)			
Chem 352 – Organic Chemistry II (4 cr)			
Chem 353 – Organic Chemistry III (3 cr) [recommended]			
Chem 354 – Organic Chemistry Lab (3 cr) [recommended]			
Phys 114 – Physics I (5 cr)			
Phys 115 – Physics II (5 cr)			
Phys 116 – Physics III (5 cr) [recommended]			
Or Yr of Physics with Calculus (15 cr) [see #2 on back]			
Math 124 – Calculus I (5 cr)			
Math 125 – Calculus II (5 cr) [recommended]			
Supporting Courses Subtotal			

53 Total Basic, Breadth, Depth, and Elective Biology credits are required to complete this major

Basic Requirements: 14 credits required			
Course	Qtr/Yr	Credits	Substitute Course #, Name, College/University
Biol 204 – Evolution, Ecology, & Biodiversity (4 cr)			
Biol 205 – Cellular & Molecular Biology (5 cr)			
Biol 206 – Organismal Biology (5 cr)			
Basic Courses Subtotal			
Breadth Requirements: 19 credits required			
Course	Qtr/Yr	Credits	Substitute Course #, Name, College/University
Biol 321 – Genetics (4 cr)			
Biol 323 – Cell & Molecular Biology (4 cr)			
Biol 325 – Ecology (3 cr)			
Biol 432 – Evolutionary Biology (4 cr)			
Math 240 – Introduction to Statistics (4 cr)			
Breadth Courses Subtotal			
Depth Requirements: 17-19 credits			
Course	Qtr/Yr	Credits	Substitute Course #, Name, College/University
Biol 345 – Microbiology (3 cr)			
Biol 451 – Plant Growth & Development (3 cr)			
Or Biol 482 Developmental Biology of Animals (4 cr)			
Biol 471 – Molecular Biology & Biochemistry (3 cr)			
Or Biol 473 – Molecular Biology (3 cr)			
Biol 324 – Methods in Molecular Biology (3 cr)			
<i>And two of the following:</i>			
Biol 322 – Genetics Lab (4 cr)			
Biol 346 – Microbiology Lab (2 cr)			
Biol 453 – Plant Development Lab (3 cr)			
Biol 484 – Developmental Biology Lab (4 cr)			
Depth Courses Subtotal			
Electives: 1-3 credits Additional elective credits may be taken to fulfill university graduation requirements.			
*Electives can be any course under Depth Requirements.			
*Biol 300, 395, 400, 445, 470, 472, 494, 495, 496, 498 and other 300- & 400-level courses under advisement			
*No more than 3 credits combined in Biol 395, 496, 498 & no more than 4 credits combined in Biol 494 & 495 can apply to this category.			
Course	Qtr/Yr	Credits	Substitute Course #, Name, College/University
Elective Courses Subtotal			
Basic, Breadth, Depth, Elective Subtotal			

Major Evaluation for Graduation: A minimum of 90 credits are required to complete this major			
Supporting Course Credit Subtotal (37 credits required)		Qtr/Yr you PLAN TO GRADUATE:	
Basic, Breadth, Depth, Elective Credit Subtotal (53 credits required)			
TOTAL CREDITS			

Biology Adviser Signature _____

Date _____

Biology Chair _____

Date _____

INSTRUCTIONS FOR CELL EMPHASIS – BACHELOR OF SCIENCE IN BIOLOGY

1. Planning your coursework.

<ul style="list-style-type: none"> ▪ Keep a working copy of your major checklist with your transcript(s) from other colleges and any waivers granted.
<ul style="list-style-type: none"> ▪ Keep your checklist up-to-date with the coursework you have completed and that is in progress. Note tentative plans that you and your adviser have discussed.
<ul style="list-style-type: none"> ▪ Bring your checklist every time you talk with your adviser.
<ul style="list-style-type: none"> ▪ See your adviser at least 2-3 times a year: <ul style="list-style-type: none"> - once in Fall Quarter to plan Winter, Spring Quarter classes; - maybe in Winter Quarter to plan internships; - once in Spring Quarter to plan Summer and Fall Quarters.

2. Instructions on how to complete this major evaluation for graduation.

<ul style="list-style-type: none"> ▪ As a working copy, use pencil to complete this form. When you use this form to apply for graduation, this form must be completed in INK.
<ul style="list-style-type: none"> ▪ The Cell emphasis is a 90 credit major. A minimum of 37 credits of supporting coursework is required, but you may wish to take more chemistry, physics, or math courses.
<ul style="list-style-type: none"> ▪ You may take the Honors Chemistry series instead of Chem 121, 122, 123. List the Honors Chemistry courses as substitute courses for the General Chemistry Series.
<ul style="list-style-type: none"> ▪ You may wish to take the Physics with Calculus series; if so, you must complete the entire series (15 cr). To indicate this substitution on the major evaluation, list Phys 121, 122, and 123 as substitutes for Phys 114, 115, and 116, respectively.

3. Western's graduation policies.

<ul style="list-style-type: none"> ▪ You are responsible for knowing all of Western's graduation requirements. You can review the requirements at: http://www.wwu.edu/depts/registrar/degree_requirements.shtml.
<ul style="list-style-type: none"> ▪ You must earn a C- or higher in every course applied towards your major.
<ul style="list-style-type: none"> ▪ You need a total of 3 Writing Proficiency (WP) units in any discipline to graduate from WWU.
<ul style="list-style-type: none"> ▪ 50% or 45 credits in your major must be taken at WWU.
<ul style="list-style-type: none"> ▪ To graduate with a bachelor's degree from WWU, you will need 60 credits of upper-division coursework (300- & 400-level classes). Use the worksheet below to list all of the upper-division courses you've taken, including GUR courses. If you took courses at a community college that transferred as upper-division courses at WWU (e.g. organic chemistry), you do not receive upper-division credits.

4. Calculate the number of upper-division credits you've taken or plan to take.

Courses (300- or 400-level)	Credits	Courses (300- or 400-level)	Credits
		TOTAL NUMBER OF CREDITS	

5. Applying for Graduation [Allow 2-3 weeks for this process]

<ul style="list-style-type: none"> ▪ Two Quarters before you plan to graduate, totally complete this major evaluation (in INK). Be sure that you note the quarter/year the course is or will be completed and any substitutes granted. Submit your major evaluation to your advisor for his/her approval. Bring the signed evaluation to the Biology Department Office and give to Kim Kolb Ayre. After the Department Chair has signed your major evaluation you will be notified via email to pick up your checklist.
<ul style="list-style-type: none"> ▪ Make a copy of your checklist with signatures of your adviser and department chair for your records and to remind you of the final courses approved for completion of your major.
<ul style="list-style-type: none"> ▪ Take your major checklist to the Registrar's office along with the Degree Application (available online at: http://www.wwu.edu/depts/registrar/pdfs/degree_application.pdf).