

Minutes
The West Virginia University Faculty Senate
Monday, December 10, 2012

1. Michael Mays, Faculty Senate Chair, called the meeting to order at 3:15 p.m. in Assembly Rooms A&B, NRCCE.

Members Present:

Abate, M.	DiBartolomeo, L.	Huffman, V.	Munasinghe, R.	Sand-Jecklin, K.
Abraham, R.	Dino, G.	Iskander, W.	Nelson, C.	Scott, H.
Ameri, S.	Elmore, S.	Johnston, A.	Nutter, R.	Sherwin, M.
Anderson, J.	Famouri, P.	Kershner, R.	Orlikoff, J.	Sperow, M.
Anderson, K.	Ferrara, L.	Kirby, B.	Osborne, E.	Stack, S.
Atkins, C.	Finkel, M.	Kite, S.	Peace, G.	Stolzenberg, A.
Bastress, R.	Fuller, E.	Kleist, V.	Perna, N.	Tallaksen, R.
Bergner, G.	Funk, A.	Knight, J.	Perone, M.	Tuninetti, A.
Bilgesu, I.	Graber, S.	Kopriva, N.	Petty, T.	Turton, R.
Blake, L.	Graves, C.	Kuhlman, J.	Polak, J.	Valenti, M.
Brock, R.	Griffith, R.	Lofaso, A.	Prudhomme, J.	Veselicky, K.
Brooks, R.	Harner, J.	Mandich, M.	Reddy, R.	Vona-Davis, L.
Bryner, R.	Harris, T.	Matak, K.	Reymond, R.	Watson, J.
Cassels, A.	Hartley, D.	Mays, M.	Rockett, I.	Wenger, S.
Cottrell, L.	Holmes, M.	Meckstroth, R.	Rose, T.	Wilcox, G.
Cronin, A.	Hornsby, G.	Miller, M.	Ruscello, D.	Woloshuk, J.
Curtis, R.	Hostuttler, G.	Miltenberger, M.	Ryan, K.	Wood, A.

Members Excused:

Barretto, G.	Cohen, S.	Huber, J.	Paternostro, M.	Sherlock, L.
Boone, D.	Etzel, E.	Kale, U.	Petronis, J.	Weihman, L.
Brazaitis, M.	Fint-Clark, B.	Lastinger, V.	Putman, H.	
Britten, R.	Hileman, S.	Oberhauser, A.	Schreurs, B.	

Members Absent:

Anfinson, J.	Carpenter, R.	Hashmi, M.	Lorimer, D.	Tower, L.
Baldwin, C.	Connors, J.	Kromar, R.	Merrifield, J.	Watson, D.
Bowen, E.	Davis, S.	Lieving, G.	Moritz, J.	Whiteman, C.
Campbell, L.	Fisher, M.	Livengood, R.	Nichols, A.	Yang, H.

Faculty Senate Officers Present:

Cottrell, L.	DiBartolomeo, L.	Lee, P.	Mays, M.
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2. Chair Mays moved for approval of the minutes from the Monday, November 10, 2012 meeting. Motion carried following a minor revision.
3. President Clements reported on the following issues:
- The Board of Governors was impressed by the presentations given by Mike Mays, Lesley Cottrell, and Bob Griffith. Members are pleased to have two faculty representatives on the board. Very few boards have a faculty representative, a staff representative, and a student

representative as voting members. The president is unaware of any other boards that have two faculty members.

- Elizabeth Dooley also gave a presentation to the Board last month on the University College initiative.
- More than 1500 students graduated on Sunday, with approximately 750 participating in convocation ceremonies. Dr. Alison Wilson, director of the Jon Michael Moore Trauma Center at Ruby Memorial Hospital, gave an excellent keynote address stressing the importance of teamwork.
- Final enrollment figures show a significant increase in international and minority student enrollment, which fits in well with the strategic plan. There was also a 1.6% increase in graduate student enrollment.
- We are about three-quarters of the way to our capital campaign goal of \$750 million.
- Morgantown has been ranked as the ninth best college town in the United States by the American Institute for Economic Research. We were ranked in the top 10 in the country in all 12 categories used in the rankings.
- All indications are that there will be a 7.5 to 9% cut in the state budget.
- The Higher Education Policy Commission is discussing a funding model that is part of a legislative committee initiative. We will report more as we learn what that model may look like.
- In the last month or so, we broke ground on the new College of Physical Activity and Sport Sciences and Student Health and Wellness facilities. The facilities are expected to be completed in spring 2014 and open by fall 2014.
- We continue to do well with competitive grants. The Job Accommodation Network has received a \$2.5 million grant from the US Department of Labor to continue managing and operating the Job Accommodation Network. Dr. Carrie Rishel in the School of Social Work received a grant of just under \$500,000 to improve access to mental health services in West Virginia for children, members of the military, and veterans.
- University Relations won seven top awards in the international MarCom Awards program, which recognizes outstanding creative achievement in the marketing and communications fields. Chris Martin has accepted a position with the prestigious Poynter Institute; we are looking at the structure of her division and will launch a national search in the spring.
- We hope to wrap up the CIO search this week.
- Last month we had a Fulbright reunion and celebration on campus. Last year, we had a record 5 Fulbright student scholars, bringing the total to 32. Since 2006, WVU has had 17 Fulbright designations on the faculty side, for a total of 69 Fulbright professors.
- The WVU community raised \$330,050 for United Way this year; a record number 1345 employees contributed. Over the past 5 years, the WVU community has contributed \$1.5 million.

- Terry Gullion, professor of Chemistry, has been named an American Physical Society Fellow. Chris Colenda, Chancellor for Health Sciences, was selected to a one year term as the chair of the Liaison Committee for Medical Education. Professor Jack Watson was recently named president of the Association for Applied Sport Psychology. Janet Snyder, head of the Art History program, won the Award for Excellence in Scholarly Research from the Southeastern College Art Conference this year. Mark Brazaitis, professor of English, won the 8th Annual Gival Press Novel Award for his novel “Julia & Rodrigo.” Ken Blemings, professor of Biochemistry, received one of six regional Excellence in College and University Teaching in the Food and Agricultural Sciences Awards sponsored by the US Department of Agriculture and the Association of Public and Land-grant Universities. The College of Business and Economics is the newest member of the Chartered Financial Analyst (CFA) Institute University Recognition Program. WVU is one of only 20 currently recognized universities in the CFA Americas program, and one of only 33 in the world. The National Academy of Engineering has named the Statler College as one of 29 programs in the nation that effectively incorporate real-world experiences into engineering education. Dr. Rachel Lagos was featured on NBC Nightly News for her groundbreaking research on chemo brain. Faculty from the Davis College, Eberly College, and Extension are part of a \$10 million grant from the US Department of Agriculture’s National Institute of Food and Agriculture focused on logistics and development of feedstock perennials for creating fuel. The Mary Babb Randolph Cancer Center recently earned a \$2.1 million grant from NIH to study pulmonary diseases which are precursors to lung cancer. The LIINC (Linking Innovation, Industry and Commercialization) program won the Award of Excellence in the Innovation and Entrepreneurship category at the University Economic Development Association 2012 Annual Summit in Tennessee.
- A team made up of graduate students from WVU and the University of South Alabama competed against more than 1,000 teams from around the world to win first place in their division in the 2012 Department of Defense Cyber Crime Center Digital Forensics Challenge. Dr. Roy Nutter is the team advisor.
- Student athletes had a combined graduation success rate of 83%. This is up 3 points from last year, and up 13 points from 3 years ago.

4. Chair Mays reported on the following issues:

- Talks are on-going with Potomac State over the possibility of the Morgantown campus providing some GTAs to meet instructional needs.
- He attended the PEIA public session. This year there are no big increases in premiums because they will use reserves to cover expenses. Some painful adjustments may be required next year.
- He has a meeting scheduled with Senate committee chairs at 1:30 tomorrow in the Evansdale Library. This will be an opportunity for committees to report on initiatives they have undertaken.
- A proposed statement concerning excused absences for students with military obligations has been referred to the Student Instruction Committee. They expect to have a report and recommendation at the next Senate meeting.

- WVU Foundation President Wayne King will give a report at the next Senate meeting concerning progress on the capital campaign.
 - Regarding GEC courses and major program requirements, Elizabeth Dooley shared a document with the Curriculum Committee and the General Education Committee that Katherine Karraker created last year. The document will provide a starting point for the Senate to formulate a recommendation on how to address that issue. There will not be a change proposed until after the first of the year at the earliest, and all departments providing GEC courses will have a chance to present concerns and solutions before a proposal goes forward.
 - Linda Cunningham is retiring this month. He expressed deep appreciation for her years of careful and conscientious service to the Faculty Senate.
5. Dennis Ruscello, Chair, Senate Curriculum Committee, moved for approval of the following reports:
- Annex I, New Courses and Course Changes. Motion carried.
 - Annex II, Curriculum Revision for Wildlife and Fisheries. Motion carried.
 - Annex III, Monthly Alterations Report, was submitted for information.
6. Ilkin Bilgesu, Chair, General Education Committee, moved for approval of the following report:
- Annex IV, GEC Actions. Motion carried.
 - Annex V, GEC Audits, was submitted for information.
7. Roy Nutter, ACF representative, reported that:
- During November's presentation to LOCEA, they received questions regarding faculty pay relative to tuition increases.
 - The HEPC met last week. Discussions are continuing concerning a health care buy-in for higher education students and families. A resolution was passed to support exempting higher education from 7.5% budget cuts.
 - PEIA premiums will decrease due to \$35 million being used from reserves. The governor will also include assistance of \$4 million in his budget.
 - The outcomes based funding model is moving along at the request of the legislature.
 - The Higher Education master plan for 2013-2018 is underway by HEPC staff.
 - The state of the system address will be given to the legislature on March 21.
8. Robert Griffith, BOG representative, reported that:
- The Board of Governors met November 15 and 16, beginning with a tour of the College of Human Resources and Education. The Board will meet again Thursday via telephone conference, and one of the agenda items involves renaming the College of Human Resources and Education as the College of Education and Human Services.

- As part of his financial report to the Board, he compared WVU to national public doctoral institutions using data obtained from the Chronicle of Higher Education's annual almanac. He also compared WVU Tech to institutions within the state system.
- He commented to the Board that our benefits are hurting recruitment, particularly in terms of the sliding scale of PEIA premiums. Our inability to provide benefits to same-sex partners has also impacted recruiting.
- In 2013, 36% of tenured faculty are eligible to retire. In 2016, that number rises to 46%.
- The Board approved a multi-million dollar renovation to the Evansdale Library.
- The Tech Revitalization Committee has been submitted, and indicates that enrollment has stabilized. A request will be submitted to LOCEA for \$7 million in renovations to the Tech campus.

9. New Business:

- Terry Rose asked that the Senate consider recommending to administration that we extend the time for reporting final grades to 4-5 calendar days after the last exam. Chair Mays will refer this to the Student Instruction Committee.

10. Meeting Adjourned at 4:18 p.m. to reconvene on Monday, January 14, 2013.

Mary Strife
Faculty Secretary

To: Faculty Senate Executive Committee
From: Dennis Ruscello, Chair, Faculty Senate Curriculum Committee
Date: November 26, 2012
Re: New Courses and Course Changes

**Eberly College of Arts and Sciences
History**

New Course:

HIST 358. US Cultural History, 1819-1893. 3 Hr. Examines the cultural “panics” about identity and sensibility produced by capitalism, slavery, war and urbanization in the nineteenth-century United States. (Effective Term: Spring 2013) (CIP 540101)

Rationale: This 300-level course in American history offers thematic and methodological perspectives on the American past that serve as a bridge between broad surveys at the 100 and 200 - level and chronologically specific courses at the 400 - level. By examining through their reading and writing assignments the ways in which nineteenth-century Americans marshaled cultural resources and ideologies to debate the meanings of identity during a century marked by capitalist transformation, slavery, war and urbanization, students will be better prepared for deeper historical explorations of more tightly focused chronological periods (and socio-political themes) in HIST 453 (Civil War and Reconstruction), HIST 454 (Coming of the Civil War), and HIST 456 (The Gilded Age).

**School of Medicine
Emergency Medicine**

New Courses:

EMCP 509. Evidence-Based Emerg. Med. 1-Hr. PR: PA-C, NP, MD or DO degree, or by permission of instructor. Students will synthesize material learned in previous courses with the student’s own clinical experiences. Evidence-based Medicine (EBM) will be utilized in this course to facilitate achievement of this objective. This is a distance learning course. (Effective Term: Spring 2013) (CIP 519999)

Rationale: This course is designed for Emergency Medicine Certificate Program students (physician assistants, nurse practitioners and physicians) and will synthesize material learned in previous courses with the student’s own clinical experiences, utilizing the principles of evidence based Emergency Medicine.

EMCP 510. Emergency Medicine Procedures. 1-Hr. PR: PA-C, NP, MD or DO degree, or by permission of instructor. Students will focus on procedures that fall within the scope of practice

of the Emergency Medicine practitioner. This is a distance learning course. (Effective Term: Spring 2013) (CIP 519999)

Rationale: This course is designed for Emergency Medicine Certificate Program students (physician assistants, nurse practitioners and physicians), and it will synthesize material learned in previous courses with the student's own clinical experiences.

**Statler College of Engineering and Mineral Resources
Computer Science**

New Course:

CS 623. String Algorithms. 3 Hr. PR: CS 221 or Consent. Algorithms on strings from traditional combinatorial pattern matchup to recent problems such as suffix sorting and string embeddings. Emphasis is on the data structures and algorithms required, their analysis, and optimal constructions. (Effective Term: Spring 2013) (CIP 110701)

Rationale: This course provides students an additional elective choice under the LCSEE graduate concentration area 5, Theory of Computing. The course content introduces students to topics in string algorithms and data structures in computer science, and emerging areas; such as, computational biology and sequence analysis.

College of Law

New Course:

LAW 621. Lawyers as Leaders. 3 Hr. An exploration of topics related to the theory and practice of leadership by lawyers intended to develop effective leadership skills for application in both the legal profession and in society in general. (Effective Term: Spring 2013) (CIP 220101)

Rationale: Lawyers as Leaders is a course that offers theoretical instruction and practical exercises in order to prepare law graduates for leadership in society.

Course Changes:

From:

LAW 700. Legal Analysis/Rsch/Writing 1. 0 Hr. Introduction to legal analysis, research, and writing. Stresses basic law school skills including case briefing, statutory analysis, and synthesis. Drafting of various legal documents including an office memorandum. (Effective Term: Spring 2013) (CIP 220101)

To:

LAW 700. Legal Analysis/Rsch/Writing 1. 2 Hr. Introduction to legal analysis, research, and writing. Stresses basic law school skills including case briefing, statutory analysis, and synthesis. Drafting of various legal documents including an office memorandum. (Effective Term: Spring 2013) (CIP 220101)

From:

LAW 711. Legal Analysis/Rsch/Writing 2. 4 Hr. PR: Continuation of LAW 700. Stresses research and writing. Drafting of various legal documents culminating in the preparation of a trial motion and memorandum and oral argument of the motion. (Credit for LAW 700 and LAW 711).

To:

LAW 711. Legal Analysis/Rsch/Writing 2. 2 Hr. PR: Continuation of LAW 700. Stresses research and writing. Drafting of various legal documents culminating in the preparation of a trial motion and memorandum and oral argument of the motion. (Effective Term: Spring 2013) (CIP 220101)

Rationale. LAW 700 and LAW 711 have long been taught as a pair of connected courses totaling 4 credit hours with a grade assigned for the entire year. Students have met for two hours each semester and have received assignment grades throughout the year, but no “transcript grade” until year’s end. LAW 700 has been a “zero-hour” pass/fail course and LAW 711 has been a 4-credit, graded course. The complete course content and requirements will continue to be the same for both. Our specific change request is for each course to be listed with a value of 2 credit hours so that a final grade can be issued for each semester. This will assist prospective employers who wish to assess our students based on first-semester grades.

**College of Physical Activity and Sport Sciences
Physical Education**

New Course:

PE 203. Yoga for Health and Wellness. 1 Hr. This course provides an introduction to yoga and yoga philosophy and encourages students to incorporate healthy lifestyle habits into their daily routines. This course has a positive impact on student’s stress levels and outlook on life. (Effective Term: Summer 2013) (CIP 131314)

Rationale: The course is unique in that it teaches yoga from a foundation based in the full aspects of the tradition. Not just a ‘fitness course’; it is grounded in yoga philosophy and principles. The course also includes targeted messaging aimed at reducing perceived stress level in students.

**West Virginia University Institute of Technology
Multi-disciplinary Studies**

New Course:

MDS 330. Regents Portfolio Design. 3 Hr. The purpose of this course is to provide and guide adults in assembling and documenting their life and work experiences that they believe equates to college level learning into a successful, defensible master portfolio that can launch course/department petitions. (Effective Term: Spring 2013) (CIP 309999)

Rationale: This course meets the intent of the Regents Bachelor of Arts Degree to consider an adult learners' life and work experiences and determine if the college level learning achieved through alternate or non-traditional paths leads to an award of college hours. WVU-Tech course only.

**WEST VIRGINIA UNIVERSITY
WILDLIFE AND FISHERIES RESOURCES PROGRAM
DAVIS COLLEGE OF AGRICULTURE, NATURAL RESOURCES AND DESIGN**

CURRICULUM CHANGE DOCUMENT

The Wildlife and Fisheries Resources (WFR) Program is proposing changes to the curriculum for the B.S. in Wildlife and Fisheries major in the Division of Forestry and Natural Resources. The proposed changes are based on professional standards and certification requirements for wildlife and fisheries biologists by The Wildlife Society (TWS) and American Fisheries Society (AFS), senior exit surveys, and program self-study. The proposed changes will align the major's curricula with course requirements for professional certification by TWS and AFS. Based upon student feedback we also propose to have three emphasis areas to more closely match student interests and professional goals. Under these new concentration areas students can: (a) become professionally certified as a wildlife biologist, (b) certified as a fisheries professional, or (c) become professionally certified as both. If accepted, we request to have our course checklists (see attachment), course catalog (see attachment), and curriculum matrix updated.

Proposed Changes to Areas of Emphasis:

Alter curricula to produce 3 new emphasis areas: By Spring 2013, we request altering the existing emphasis area to ensure that students have completed the coursework necessary to permit them to be professionally certified by professional societies in this field. The proposed Wildlife Concentration will provide the coursework needed to be certified as a wildlife biologist by TWS. The Fisheries Concentration will provide coursework necessary for certification by AFS as a fisheries professional. Students who are interested in both wildlife and fisheries certifications can complete coursework for both within the restricted electives within the Wildlife or Fisheries Concentrations.

Changes to the Existing Curriculum:

(1) Addition of a Wildlife and Fisheries Summer Camp (3 hrs WMAN 205) to the core curriculum.

We propose to add a new one-week summer camp experience to the curriculum for all emphasis areas to immerse the students in hands-on field experiences during the summer between the freshman and sophomore years. The summer camp experience will allow students to bond as a cohort and provide students with many of the techniques and methods used by wildlife and fisheries managers and biologists early in their academic development. This will better prepare students for summer temporary employment in the field as early as the summer between freshman and sophomore years.

(2) Addition of Conservation Genetics (3 hrs WMAN 330) to the core curriculum.

The Wildlife and Fisheries Program recently hired a faculty member in conservation genetics, Dr. Amy Welsh, who will begin in August 2011. As part of this appointment she will teach a new Conservation Genetics class within WMAN. We propose to have this new class as part of the core curriculum in Wildlife & Fisheries Resources.

(3) Addition of Foundations of Applied GIS (RESM 440/441) to the core curriculum.

Management and ecology of wild species is increasingly reliant upon spatially related data and analysis. Over the last 5-10 years many of our undergraduates have taken RESM 440 class as a restricted elective as part of their curriculum. Market trends for wildlife and fisheries professionals indicate an increased reliance on GIS technology. For that reason we have decided to include this class (and its lab, RESM 441) as part of the core curriculum in the revised major. Dr. Michael Strager has approved the WFR Program request to require all WFR students to take these classes (see signature on approval sheet).

(4) Change of status to “required” for FOR 240 Introduction to Computing in Natural Resources from an “option” for the computer class requirement in the curriculum.

The FOR 240 class provides a more relevant computer class for WFR majors than the general computer classes. Therefore we seek to change the FOR 240 class from one of several computer class options to the required class for the major. Dr. Jingxin Wang, the instructor of FOR 240 and Program Chair in WDSC has approved the WFR Program request to require all WFR students to take this class (see signature on approval sheet).

(5) Change of status from “required” for CHEM 112 or CHEM 116 to an optional class under “Physical Sciences” for the concentration areas.

Changes in the professional certification requirements for TWS and AFS have reduced the necessity of a 2nd semester of Chemistry. Therefore we have removed CHEM 112 or 116 from the core requirements. Students may still elect to take CHEM 112 or 116 as part of the Physical Sciences requirement for the Wildlife or Fisheries Concentration Areas.

(6) Change of status from “required” for ANPH 301 to an optional class under “Restricted Electives” for the concentration areas

Changes in the professional certification requirements for TWS and AFS have eliminated the need for Animal Physiology for certification. Further, this class had become a stumbling block for many students in the program, often requiring several attempts to pass the class. Therefore we have removed ANPH 301 from the core requirements. Students may still elect to take ANPH 301 as part of the Restricted Electives requirement for the Wildlife or Fisheries Concentration Areas.

(7) Electives.

Under the proposed curriculum students will still have 9 hours of Restricted Electives to fulfill. To simplify selection of Restricted Electives (REs) for students we have now compiled a list of classes that automatically qualify for inclusion as REs (see attached list). In general, any class listed as an optional class under the fisheries or wildlife concentration that is not taken to fulfill a requirement on page 2, can be taken as a restricted elective. In addition, classes such as ANPH 301 (Animal Physiology), ENGL 305 (Technical Writing), and others listed in the RE list can also be taken to fulfill the RE requirement. Other classes can be accepted for the REs under consultation with the student's advisor.

(8) Change WMAN 491. Professional Field Experience from 1-3 credit hours to 3 credit hours (2 hrs in summer, 1 hr in fall).

Under the old curriculum, students were required to take WMAN 491 but could elect to take from 1 to 3 hrs. The intent of this class is to provide students with an internship experience to bolster their career success following graduation. Students were required to work (or volunteer) with their internship provider for a minimum of 64 hours per credit hour taken. Students who took the class for 3 hrs were required to provide a seminar during fall semester, in addition to working for 192 hrs. In an effort to improve and standardize the internship experience the new WFR curriculum would require all students to take 3 credit hours of WMAN 491. However, the credit would be split between Summer and Fall semesters. Students would sign up for 2 credit hours during Summer and work with their employer for a minimum of 128 hrs, then take 1 credit hour of WMAN 491 during the subsequent Fall semester during which time they would present and participate in a seminar dealing with student internship experiences and job seeking skills.

SIGN-OFF APPROVALS (for proposed required courses):

COURSE	INSTRUCTOR/CHAIR	APPROVAL SIGNATURE	DATE
FOR 240 Intro Computing For Natural Resources	Jingxin Wang	_____	_____
RESM 440/441 Foundations of Applied GIS	Michael Strager	_____	_____
SPA 270 Effective Public Speaking	Robert Orlikoff	<u>see email attachment</u>	<u>12/17/2010</u>

CURRICULUM IN WILDLIFE AND FISHERIES RESOURCES (128 Hrs)**Advisor's Checklist, Spring 2013 curriculum (Rev. 11-26-12).**Note: This curriculum will meet WVU requirements and certification requirements for The Wildlife Society, American Fisheries Society, or both.*

- _____ WMAN 100. The Tradition of Hunting (3 hrs)
- _____ *WMAN 150. Essentials of Conservation Ecology (3 hrs)
- _____ *WMAN 175. Intro. To Wildlife & Fisheries Management (3 hrs)
- _____ WMAN 205. Wildlife and Fisheries Summer Camp (3 hr)
- _____ *WMAN 224. Vertebrate Natural History (3 hrs)
- _____ WMAN 234. Forest Wildlife Management (3 hrs)
- _____ *WMAN 300W. Wildlife and Fisheries Techniques (3 hrs)
- _____ WMAN 313. Wildlife Ecosystem Ecology (4 hrs)
- _____ WMAN 330. Conservation Genetics (3 hrs)
- _____ *WMAN 421. Renewable Resources Policy and Governance (3 hrs)
- _____ WMAN 425. Mammalogy, **OR** WMAN 426. Ornithology, **OR** BIOL 433. Herpetology (3 hrs)
- _____ *WMAN 445. Fish Management (3 hrs)
- _____ *WMAN 446. Forest Limnology (4 hrs)
- _____ WMAN 491. Professional Field Experience (3 hr)^ψ
- _____ *WMAN 450. Advanced Wildlife & Fisheries Management – **Capstone**. (4 hr)
- _____ *AGRN 202/203. Principles of Soil Science (4 hrs)
- _____ *BIOL115 or BIOL 101/103 (or equivalent) (4 hrs)
- _____ *BIOL 117 or BIOL 102/104 (or equivalent) (4 hrs)
- _____ *CHEM 115 or CHEM 111 (or equivalent) (4 hrs)
- _____ FOR 101. Careers–Natural Resource Management (Orientation) (1 hr)
- _____ FOR 205. Dendrology (3 hrs)
- _____ *FOR 240. Introduction to Computing in Natural Resources (3 hrs)
- _____ *MATH 126. College Algebra (3 hrs)
- _____ RESM 440/441. Foundations of Applied GIS (3 hrs)
- _____ *SPA 270. Oral Communications (3 hrs)
- _____ *STAT 211. Elementary Statistical Inference (3 hrs)

If you want to meet certification requirements for the American Fisheries Society (AFS) follow the guidelines under **Fisheries Concentration**. AFS requires a minimum grade of “C” in all classes with an “*”. To meet certification requirements for The Wildlife Society (TWS) follow the guidelines under **Wildlife Concentration**. To meet both AFS and TWS certification requirements, for each category, use the higher credit requirement.

^ψ *The Professional Field Experience (WMAN 491) is required to be taken as 2 hrs during Summer semester while conducting the internship and 1 hr during the subsequent Fall semester as a seminar for a total of 3 credit hours.*

FISHERIES CONCENTRATION**Botany—NONE REQUIRED****Forestry—NONE REQUIRED*****Fisheries—Choose 1:** (3 hrs)

- BIOL 339 (Aquaculture) (3 hrs)
 BIOL 341 (Ichthyology) (4 hrs)
 RESM 420 (Aquaculture Management) (4 hrs)
 WMAN 314 (Marine Ecology) (3 hrs)
 WMAN 466 (Stream Ecos. Assessment) (3 hrs)
 WMAN 550 (Fish Ecology) (3 hrs)

***Physical Sciences—Choose 2:** (7 hrs)

- CHEM 116 or CHEM 112 (or equivalent) (4 hrs)
 CHEM 231/233/235 (Organic Chemistry) (4 hrs)
 GEOL 101/102 (Planet Earth) (4 hrs) *or*
 GEOL 110/111 (Environmental Geoscience) (4 hrs)
 GEOL 203 (Physical Oceanography) (3 hrs)
 GEOL 321 (Geomorphology) (3 hrs)
 PHYS 101 (3 hrs)
 Any soils beyond AGRN202/203 (3 hrs)

***Policy and Administration—Choose 1:** (3 hrs)

- ARE 382 Ag. & Nat. Res. Law (3 hrs)
 ARE 450 (Ag, Env., and Res. Policy) (3 hrs)
 ENVP 460 (Envir. Impact. Assess) (3 hrs)
 FOR 438 (Hum. Dim. Nat. Res. Mgt.) (3 hrs)
 POLS 338 (Environmental Policy) (3 hrs)

***Quantitative Science—Choose 1:** (3 hrs)

- Math 150 (Introduction to Calculus) (3 hrs)
 STAT 312 (Intermed. Stat. Meth.) (3 hrs)
 STAT 511 (Stat. Method. I) (3 hrs)

Wildlife Biology—NONE REQUIRED**Restricted Electives—8 Credits**

WILDLIFE CONCENTRATION**Botany—Choose 1:** (3 hrs)

- BIOL 350 Plant Physiology (3 hrs)
 BIOL 351 Plant Diversity (3 hrs)
 BIOL 353 Flora of West Virginia (3 hrs)
 BIOL 361 Plant Ecology (3 hrs)
 BIOL 363 Plant Geography (3 hrs)
 BIOL 450 Plant Systematics (3 hrs)
 FOR 325 Vegetation of West Virginia (3 hrs)
 PLSC 206 Principles of Plant Science (4 hrs)

Forestry—(4 hrs):

- FOR 310. Elements of Silviculture (4 hrs)

Fisheries— NONE REQUIRED**Physical Sciences—Choose 1:** (3 hrs)

- CHEM 116 or CHEM 112 (4 hrs)
 CHEM 231/233/235 (Organic Chemistry) (4 hrs)
 GEOL 101/102 (Planet Earth) (4 hrs) *or*
 GEOL 110/111 (Environmental Geoscience) (3 hrs)
 GEOL 321 (Geomorphology) (3 hrs)
 GEOL 203 (Physical Oceanography) (3 hrs)
 PHYS 101 (3 hrs)
 Any soils beyond AGRN202/203 (3 hrs)

Policy and Administration—Choose 1: (3 hrs)

- ARE 382 Ag. & Nat. Res. Law (3 hrs)
 ARE 450 (Ag, Env., and Res. Policy) (3 hrs)
 ENVP 460 (Envir. Impact. Assess) (3 hrs)
 FOR 438 (Hum. Dim. Nat. Res. Mgt.) (3 hrs)
 POLS 338 (Environmental Policy) (3 hrs)

Quantitative Science— NONE REQUIRED**Wildlife Biology—Choose 1:** (3 hrs)

- WMAN 221 (Interpretive Bird Study) (3 hrs)
 WMAN 250 (Big Game Ecology and Man.) (3 hrs)
 WMAN 260 (Waterfowl Ecology) (3 hrs)
 WMAN 425 *or* WMAN 426 or BIOL 433 (3 hrs)

Restricted Electives—8 Credits

General Education Curriculum Classes:

WVU's curriculum includes requirements for classes from 9 GEC objectives. Below are those objectives, and classes that the WFR program requires and suggests to meet GEC objective requirements and allow you to meet certification requirements with The Wildlife Society or the American Fisheries Society with the minimal number of courses. Note that objective 2 (Math and Sciences- 13-15 hrs) is provided for in required courses above.

Objective 1: Communication— (6 hrs)

_____ *ENGL 101. English Composition 1 (3 hrs)

_____ *ENGL 102. English Composition 2 (3 hrs)

OR

_____ *ENGL 103. Accelerated Academic Writing (3 hrs)

Objective 3: The Past and its Traditions— (3 hrs)

_____ GEC Objective 3 (3 hrs)

Objective 4: Contemporary Society— (3 hrs)

SPA 270 is a **required course** (3 hrs)

Objective 5: Artistic Expression—(3 hrs)

_____ GEC Objective 5 (3 hrs)

Objective 6: The Individual in Society— (3 hrs) Note: 4 hours are required but 1 credit (FOR 101) is accounted for on the front page.

_____ GEC Objective 6 (3 hrs)

Objective 7: American Culture— (3 hrs)

WMAN 100 is a **required course** (3 hrs)

Objective 8: Western Culture (3 hrs) — (3 hrs)

_____ GEC Objective 8 (3 hrs)

Objective 9: Non-Western Culture (3 hrs) — (3 hrs)

_____ GEC Objective 9 (3 hrs)

Example Four Year Plans

Four Year Plan: BS in WFR with Fisheries Concentration, satisfying requirements of AFS for certification as a fisheries biologist.

	Fall		Spring		Summer	
FRESHMAN	ENGL 101	3	BIOL 102/104 or 117	4	WMAN 205	3
	FOR 101	1	GEC (2 Courses)	6		
	MATH 126	3	WMAN 150	3	Total	3
	BIOL 101/103 or 115	4	GEC or Rest. Elective*	3		
	WMAN 100	3	Total	16		
	WMAN 175	3				
	Total	17				
SOPHOMORE	CHEM 111 or 115	4	ENGL 102	3	WMAN 491	1-2
	FOR 205	3	FOR 240	3	Rest. Elective(s)*	0-6
	STAT 211	3	SPA 270	3		
	WMAN 224	3	Physical Science Course*	3/4		
	GEC or Rest. Elective**	3	WMAN 234	3		
	Total	16	Total	15/16	Total	1-9
JUNIOR	WMAN 300	3	AGRN 202/203	4	WMAN 491	0-3
	WMAN 421	3	WMAN 313	4		
	Fisheries Course/GEC/ Rest. Elective*	3/4	WMAN 330	3	Rest. Elective(s)*	0-6
	Fisheries Course/GEC/ Rest. Elective*	3/4	WMAN 425 or 426	3		
	WMAN 491	1	Quantitative Science Course*	3	Total	0-9
	Total	13-15	Total	17	Total	0-9
SENIOR	WMAN 445	3	WMAN 446	4		
	RESM 440/441	3	WMAN 450	4		
	Policy Course*	3	Fisheries Course/GEC/ Rest. Elective*	3		
	Physical Science Course*	3	Fisheries Course/GEC/ Rest. Elective*	3		
	Fisheries Course/GEC/ Rest. Elective*	3	Fisheries Course/GEC/ Rest. Elective*	3		
	Total	15	Total	14		
Grand Total Credit Hours ≥ 128						

* See accompanying list of courses from which to choose restricted elective.

Note: Time slots for electives may need adjusted to coincide with particular course offerings that meet your career goals.

Example Four Year Plans

Four Year Plan: BS in WFR with Wildlife Concentration, satisfying requirements of TWS for certification as a wildlife biologist.

	Fall		Spring		Summer	
FRESHMAN	ENGL 101	3	BIOL 102/104 or 117	4	WMAN 205	3
	FOR 101	1	GEC (2 Courses)	6		
	MATH 126	3	WMAN 150	3	Total	3
	BIOL 101/103 or 115	4	GEC or Rest. Elective	3		
	WMAN 100	3				
	WMAN 175	3	Total	16		
	Total	17				
SOPHOMORE	CHEM 111 or 115	4	ENGL 102	3	WMAN 491	1-3
	FOR 205	3	FOR 240	3	Rest. Elective(s)*	0-6
	STAT 211	3	SPA 270	3		
	WMAN 224	3	Physical Science Course*	3/4		
	GEC or Rest. Elective*	3	WMAN 234	3		
	Total	16	Total	15/16	Total	1-9
JUNIOR	FOR 310	4	AGRN 202/203	4	WMAN 491	0-3
	WMAN 300	3	WMAN 313	4		
	WMAN 421	3	WMAN 330	3		
	GEC or Rest. Elective*	3/4	WMAN 425 or 426	3	Rest. Elective(s)*	0-6
	WMAN 491	1	Wildlife Biology Course*	3		
	Total	14/15	Total	17	Total	0-9
SENIOR	WMAN 445	3	WMAN 446	4		
	RESM 440/441	3	WMAN 450	4		
	Policy Course*	3	GEC or Rest. Elective*	3		
	Botany	3	GEC or Rest. Elective*	3		
	GEC or Rest. Elective*	3	Total	14		
	Total	15				

Total Credit Hours ≥ 128

* See accompanying list of courses from which to choose restricted elective.

Note: Time slots for electives may need adjusted to coincide with particular course offerings that meet your career goals.

Example Four Year Plans

Four Year Plan: BS in WFR with **BOTH** AFS and TWS Certification requirements.

	Fall		Spring		Summer	
FRESHMAN	ENGL 101	3	BIOL 102/104 or 117	4	WMAN 205	3
	FOR 101	1	GEC (2 Courses)	6		
	MATH 126	3	WMAN 150	3		
	BIOL 101/103 or 115	4	GEC or Rest. Elective	3		
	WMAN 100	3				
	WMAN 175	3				
	Total	17	Total	16	Total	3
SOPHOMORE	CHEM 111 or 115	4	ENGL 102	3	WMAN 491	1-3
	FOR 205	3	FOR 240	3	Rest. Elective(s)*	0-6
	STAT 211	3	SPA 270	3		
	WMAN 224	3	Physical Science Course*	3/4		
	GEC or Rest. Elective*	3	WMAN 234	3		
	Total	16	Total	15/16	Total	1-9
JUNIOR	FOR 310	4	AGRN 202/203	4	WMAN 491	0-3
	WMAN 300	3	WMAN 313	4		
	WMAN 421	3	WMAN 330	3	Rest.	0-6
	GEC or Rest. Elective*	3/4	WMAN 425 or 426	3	Elective(s)*	
	WMAN 491	1	Wildlife Biology Course*	3		
	Total	14/15	Total	17	Total	0-9
SENIOR	WMAN 445	3	WMAN 446	4		
	RESM 440/441	3	WMAN 450	4		
	Policy Course*	3	GEC or Rest. Elective*	3		
	Botany	3	Physical Science Course*	3		
	Fisheries Course*	3	Total	14		
	Total	15				
Total Credit Hours ≥ 128						

* See accompanying list of courses from which to choose restricted elective.

Note: Time slots for electives may need adjusted to coincide with particular course offerings that meet your career goals.

Wildlife and Fisheries Resources

Bachelor of Science

The wildlife and fisheries resources curriculum, consisting of 128 hours, prepares students for professional positions as wildlife and fish biologists, natural resources conservation officers, wildlife and fisheries managers and planners, wildlife or fisheries communication specialists, wildlife and fisheries toxicologists, and environmental consultants. The program is unique in the region as students fulfilling this program will meet the requirements for professional certification as either a wildlife biologist (certified through The Wildlife Society) or fisheries biologist (through the American Fisheries Society). Students select a wildlife or fisheries concentration, or both. The curriculum provides a solid basic background in biology, ecology, and natural resource management. A careful selection of restricted electives enables students to specialize in related natural resource areas and to have the opportunity for widening employment in other environmental fields. Other options can be tailored to your objectives. Students will be able to consult with their advisor in the selection of courses from a group of restricted electives to develop your area of emphasis.

Core Curriculum Requirements Hrs.

WMAN 100 The Tradition of Hunting.....	3 ¹
WMAN 150 Principles of Conservation Ecology.....	3
WMAN 175 Intro. to Wildlife and Fisheries Management.....	3
WMAN 205 Wildlife and Fisheries Summer Camp.....	3
WMAN 224 Vertebrate Natural History.....	3
WMAN 234 Forest Wildlife Management.....	3
WMAN 300W Wildlife and Fisheries Techniques.....	3
WMAN 313 Wildlife Ecosystem Management.....	4
WMAN 330 Conservation Genetics	3
WMAN 421 Renewable Resources Policy and Governance.....	3
WMAN 445 Fish Management.....	3
WMAN 446 Forest Limnology.....	4
WMAN 450 Adv. Wildlife and Fisheries Mgmt. (Capstone).....	4
WMAN 491 Professional field experience.....	3
AGRN 202/203 Principles of Soil Science.....	4
BIOL (BIOL 115 & 117 OR BIOL 101–104).....	8
CHEM (CHEM 115 OR CHEM 111).....	4
FOR 101 Careers in Natural Resources Management.....	1
FOR 205 Dendrology.....	3
FOR 240 Intro. To Computing in Natural Resources.....	3
MATH 126 College Algebra.....	3
RESM 440&441 Foundations of Applied GIS.....	3
SPA 270 Oral Communications.....	3 ²
STAT 211 Elementary Statistical Inference	3
ENGL 101 and 102 Composition and Rhetoric.....	6
Wildlife Biology (select one: WMAN 425, WMAN 426, BIOL 433.....	3
Policy and Administration (select one: ARE 382, ARE 450, ENVP 460, FOR 438, POLS 338).....	3
Restricted Electives.....	8
GEC #3 The Past and its Tradition.....	3
GEC#5 Artistic Expression.....	3
GEC #6 The Individual in Society.....	4 ³
GEC#8 Western Culture	3
GEC#9 Non-Western Culture.....	3

Fisheries Concentration

Fisheries course (select one: BIOL 339, BIOL 341, RESM 420, WMAN 314, WMAN 466, WMAN 550)	3
Physical Sciences (select two: CHEM 112 or 116, CHEM 231, CHEM 233, CHEM 235, GEOL 101/102, GEOL 110/111, GEOL 203, GEOL 321, PHYS 101).....	7
Quantitative Sciences (select one: MATH 150, STAT 312, STAT 511).....	3

Wildlife Concentration

Wildlife Biology course (select one: WMAN 221, WMAN 250, WMAN 260, WMAN 425, WMAN 426, BIOL 433)	3
Physical Sciences (select one: CHEM 112 or 116, CHEM 231, CHEM 233, CHEM 235, GEOL 101/102, GEOL 110/111, GEOL 203, GEOL 321, PHYS 101).....	3
FOR 310 Elements of Silviculture.....	4
Botany course (select one: BIOL 350, BIOL 351, BIOL 353, BIOL 361, BIOL 363,	

BIOL 450, FOR 325, PLSC 206).....3

Total.....128

¹ *WMAN 100 satisfies the University requirement of a GEC objective 7 class (American Culture).*

² *SPA 270 satisfies the University requirement of a GEC objective 4 class (Contemporary Society).*

³ *The University requires 4 hrs of GEC objective 6 which is satisfied by selecting one of these classes in combination with FOR 101 from the required core curriculum.*

Students in the Wildlife and Fisheries program will be required to take two classes during summer sessions. The WMAN 205 class, Wildlife and Fisheries Summer Camp, is a 3 hour class that will meet for one week between freshman and sophomore years. This class will immerse students into the hands-on aspects of collecting and studying wildlife and fisheries species. Students are also required to take 2 hours of WMAN 491 Professional Field Experience during a summer after their sophomore year. In this class students will intern with professional agencies and organizations to gain valuable real-world experience. Students then enroll in 1 hour of WMAN 491 during the subsequent Fall semester during which they present a seminar on their internship experiences.

When you attend WVU in the wildlife and fisheries resources program, you will have some special opportunities to enhance your education. We have a U.S.G.S. Fish and Wildlife Cooperative Research Unit housed within our program. This unit provides three additional faculty members conducting extensive research programs all around the country. In addition, the WVDNR provides a liaison biologist to the unit that provides a direct link from students to the state's natural resources agency. Undergraduates benefit from the personnel at the unit in several ways: the unit and liaison provide federal and state contacts for employment opportunities; the unit research programs may provide summer employment on fish and wildlife projects, and faculty in the unit also teaches in our program.

All of our Faculty are involved with graduate training. This active research program provides invaluable classroom experiences as faculty remain up-to-date with all the latest studies and methods in the field. Students also benefit through volunteer experiences and summer employment opportunities for students working on research projects. Career opportunities in wildlife and fisheries are expanding. Even so, we encourage our students to consider going for advanced degrees when they finish here. Such qualified seniors find that assistantships are readily available due to the solid course background, training, and experience they received while here at WVU.

CORRECTION TO THE MINOR IN WILDLIFE AND FISHERIES FOR THE UG CATALOG

As part of our revision to the UG handbook description, we note the following correction to the Minor in Wildlife and Fisheries Resources. The course number for Wildlife and Fisheries summer camp was listed incorrectly as WMAN 293. It has received its official course number of WMAN 205. The change is noted below.

Minor in Wildlife and Fisheries Resources

In order to earn a formal minor, students must complete the following courses:

1. Basic Natural History-WMAN 224
2. Field and Laboratory Techniques – WMAN 300 or WMAN 205
3. Concepts of Ecology, Management, or Conservation – one of the following: WMAN 100, WMAN 150, WMAN 234.
4. Advanced Ecology, Biology and Management-select three of the following: WMAN 313, WMAN 425, WMAN 426, WMAN 445, WMAN 446, WMAN 450, WMAN 550

Memorandum

To: Faculty Senate Executive Committee

From: Nicholas Perna, Chair-Elect
Senate Curriculum Committee

Date: 11/26/2012

RE: Monthly Alterations Report

Sub Code	Course Number	CIP	Action	Old	New	Rationale	Effect Date
CHEM	750		Remove PR.	CHEM 750. Introduction to Proteomics. 3 Hr. PR: CHEM 233 and CHEM 234. Introduction to protein separations and sequencing by modern mass spectrometry, and the application of these methods to the study of biological systems in health and environmental sciences.	CHEM 750. Introduction to Proteomics. 3 Hr. Introduction to protein separations and sequencing by modern mass spectrometry, and the application of these methods to the study of biological systems in health and environmental sciences.	Remove PRs that are satisfied by undergraduate transcripts.	201305
EPID	628	512201	Change Credit Hour.	EPID 628. Epidemiology Practicum. 3 Hr. PR: EPID 627. Students implement the substantive public health project (Planned in proposal course) under the mentorship of faculty and preceptors. Results are reported through a formal paper and a poster presentation to faculty, students and guests.	EPID 628. Epidemiology Practicum. 6 Hr. PR: EPID 627. Students implement the substantive public health project (Planned in proposal course) under the mentorship of faculty and preceptors. Results are reported through a formal paper and a poster presentation to faculty, students and guests.	Change credit hours from 3 to 6 to correct erroneous earlier submission.	201305
FLIT	266	160101	Remove PR.	FLIT 266. Latin American Literature. 3 Hr. PR: ENGL 102 or ENGL 103. An introduction to the diverse literary traditions of Latin America, this survey explores the historical roots that gave	FLIT 266. Latin American Literature. 3 Hr. An introduction to the diverse literary traditions of Latin America, this survey explores the historical	Remove PRs to create a non-writing section of the course. Certain students within the major satisfy their	201305

				rise to modern Latin American literature.	roots that gave rise to modern Latin American literature.	writing requirement in a different course, but would like to have the opportunity to take this as well.	
PUBH	685	512201	Change credits to variable.	PUBH 685. Internship-Pub Hlth Practicum.5-Hr.The internship provides the students with the opportunity to develop their practical skills and enhance professional competencies by applying the knowledge and techniques gained from their MPH coursework to public health practice.	PUBH 685. Internship-Pub Hlth Practicum. 1-5 Hours. The internship provides the students with the opportunity to develop their practical skills and enhance professional competencies by applying the knowledge and techniques gained from their MPH coursework to public health practice.	Change credit hours from fixed to variable to correct erroneous earlier submission.	201305
SPAN	330	160101	Change PR.	SPAN 330. Latin American Culture. 3 Hr.PR: SPAN 302. Survey of Latin American civilization and culture from the pre-Colombian period to the present.	SPAN 330. Latin American Culture. 3 Hr. PR: 2 courses of SPAN 310, 311, 312, 313, 314. Survey of Latin American civilization and culture from Pre-Colombian period to the present.	Change PR due to changes in program bridge courses.	201305
SPAN	340	160101	Change PR.	SPAN 340. Culture of Spain. 3 Hr.PR: SPAN 302. Survey of Spanish civilization and culture from its origins to the present day.	SPAN 340. Culture of Spain. 3 Hr. PR: 2 courses of SPAN 310, 311, 312, 313, 314. Survey of Spanish civilization and culture from its origins to the present day.	Change PR due to changes in program bridge courses.	201305

Course Drops

DSM 261, Family Economics
 DSM 265, Family Resource Management
 DSM 267, Household Equipment
 DSM 361, Consumer Economics
 DSM 381, Issues in Consumer Sciences
 DSM 460, Communications of Consumer Information

PCOL 562, Occupational Toxicology
 SPAN 301, Spanish Conversation
 SPAN 302, Reading and Composition
 SPAN 303, Advanced Grammar
 SPAN 304, Advanced Reading and Composition

Memorandum

Date: November 26, 2012

To: Faculty Senate Executive Committee

From: Ilkin Bilgesu, Chair
General Education Curriculum Oversight Committee

Re: GEC Actions

The General Education Curriculum Oversight Committee met on November 15th and recommends the following course for Faculty Senate approval:

Approved New GEC Writing Courses:

GEOG 463, Crime Geography: Concepts, Mapping and Analysis

GEC Objectives (for information only)

1. Communication (ENGL 101 & 102, or ENGL 103 only; W courses evaluated separately)
 2. Basic Math & Scientific Inquiry (Total: 13+ hr, including 1 Lab) [Note 2A = Math & Stats (3+ hr required); 2B = Natural & Physical Sciences (7+ hr required); 2C = Natural Resources & Environment (may be used toward Total)]
 3. The Past and Its Traditions (3+ hr)
 4. Contemporary Society (UNIV 101 & 3+ hr)
 5. Artistic Expression (3+ hr)
 6. The Individual in Society (3+ hr)
 7. American Culture (3+ hr)
 8. Western Culture (3+ hr)
 9. Non-Western Culture (3+ hr)
- W. Writing (1 course, audit/application requires separate “W” form)

Memorandum

Date: November 26, 2012

To: Faculty Senate Executive Committee

From: Ilkin Bilgesu, Chair
General Education Curriculum Oversight Committee

Re: GEC Audits – For Information Only

The GEC Oversight Committee met on November 15th and passed the following course for GEC Audit:

GEC Successful Audits:

GEOL 102, Planet Earth Laboratory (Obj. 2B/Lab)

Deletions from GEC by request of Department Chair:

HUM 103, Honors Seminar in Humanities 1 (Obj. 5 & 8)

HUM 104, Honors Seminar in Humanities 2 (Obj. 5 & 8)

PHIL 310, Philosophy of Science (Writing)

PHIL 321, Ethical Theory (Writing)

GEC Objectives:

1. Communication (ENGL 101 & 102, or ENGL 103 only; W courses evaluated separately)
2. Basic Math & Scientific Inquiry (Total: 13+ hr, including 1 Lab) [Note 2A = Math & Stats (3+ hr required); 2B = Natural & Physical Sciences (7+ hr required); 2C = Natural Resources & Environment (may be used toward Total)]
3. The Past and Its Traditions (3+ hr)
4. Contemporary Society (UNIV 101 & 3+ hr)
5. Artistic Expression (3+ hr)
6. The Individual in Society (3+ hr)
7. American Culture (3+ hr)
8. Western Culture (3+ hr)
9. Non-Western Culture (3+ hr)
- W. Writing (1 course, audit/application requires separate “W” form)