Minutes
West Virginia University Faculty Senate
Monday, January 13, 2014

1. Lisa DiBartolomeo, Faculty Senate Chair, called the meeting to order at 3:15 p.m. in Ruby Grand Hall, Erickson Alumni Center.

Members Present:

Abate, M.	Cronin, A.	Hostuttler, L.	Mucino, V.	Sherlock, L.
Ameri, S.	Elmore, S.	Hutson, Z.	Nutter, R.	Sperow, M.
Anderson, J.	Eschen, E.	Johnston, A.	Oberhauser, A.	Srivastava, A.
Anderson, K.	Ferrara, L.	Johnstone, R.	Orlikoff, J.	Stolzenberg, A.
Atkins, C.	Finkel, M.	Kale, U.	Peace, G.	Tower, L.
Barretto, G.	Funk, A.	Kershner, R.	Perna, N.	Utzman, R.
Bastress, R.	Giacobbi, P.	Kite, S.	Petronis, J.	Valenti, M.
Bergner, G.	Gilleland, D.	Kleist, V.	Petty, T.	Vester, M.
Bilgesu, I.	Graber, S.	Kopriva, N.	Polak, J.	Vona-Davis, L.
Billings, H.	Griffith, R.	Lofaso, A.	Proudfoot, C.	Walter, S.
Bonner, D.	Haines, K.	Mandich, M.	Reddy, R.	Waterson, R.
Boone, D.	Harner, J.	Matak, K.	Regier, M.	Watson, J.
Bowen, E.	Harris, T.	Mays, M.	Reymond, R.	Weihman, L.
Brazaitis, M.	Hartnett, H.	McTeer, M.	Riedel, B.	Wenger, S.
Bryner, R.	Hileman, S.	Meckstroth, R.	Ruscello, D.	Wilcox, G.
Campbell, L.	Hitt, L.	Merrifield, J.	Ryan, K.	Woloshuk, J.
Connors, J.	Holmes, M.	Miltenberger, M.	Sand-Jecklin, K.	Yang, H.
Cottrell, L.	Hornsby, G.	Montgomery-Downs, H.	Schreurs, B.	

Members Excused:

Baldwin, C.	Cassels, A.	Garrett, V.	Jaczynski, J.	Prudhomme, J.
Britten, R.	Cohen, S.	Graves, C.	Kromar, R.	Salm, A.
Brooks, R.	Dick, G.	Insch, G.	Munasinghe, R.	Scott, H.
Burnside, J.	Famouri, P.	Jacknowitz, A.	Paternostro, M.	

Members Absent:

Brock, R.	Fuller, E.	Kuhlman, J.	Lorimer, D.	Watson, D.
Curtis, R.	Hartley, D.	Lastinger, V.	Maynor, L.	Whiteman, C.
Fisher, M.	Knight, J.	Lively, M.	Tveter, K.	

Faculty Senate Officers Present:

DiBartolomeo, L.	Lee, P.	Mays, M.	Orlikoff, J.

2. Chair DiBartolomeo moved for approval of the minutes from the Monday, December 9, 2013 meeting. Motion carried.

3. President E. Gordon Gee reported the following:
   - WVU has changed greatly in the time between his two periods as president – in enrollment, facilities, and level of scholarship among others. However, WVU has not lost its fundamental character or its devotion to the 1.8 million citizens of West Virginia.
   - WVU faces enormous challenges and opportunities brought about by the federal budget deficit, student debt, the recession, and budget reductions. The future of this state and its

economy depends upon the University. The University must find ways to focus on and advance our core businesses despite the financial challenges facing us.

- We cannot afford to have a barrier between faculty, administration, staff, or students.
- WVU should develop partnerships with institutions around the world because "the world comes to West Virginia through WVU and West Virginia goes out to the world through WVU."

4. Provost Michele Wheatly spoke more to inspire than to report. She urged faculty to develop BHAGs (big hairy audacious goals) rather than simply get bogged down in the "tyranny of the urgent" everyday tasks. A BHAG that resulted in the establishment of the University College has led to increased retention. About 91% of students who first enrolled in the fall semester have returned. The future advancement of WVU will require us to do extraordinary things. We will not get there with the status quo. We will need to stop doing things that are not mission critical and realign the budget to support our critical missions.

5. Chair DiBartolomeo reported the following:
   - Patricia Lee has accepted a position with another university. An email will be sent out soliciting volunteers for Senate parliamentarian.
   - She extended her sympathies to families, friends, colleagues, students, alumni, and others in the affected areas along the Elk River.
   - She encouraged Senators who signed up for committees to attend their committee meetings. If you are unable to complete your service, please consider asking to have your seat reassigned.
   - HEPC is not satisfied with the report submitted by Fox Lawson and Associates. That report has not yet been made public.
   - The fall break survey will be going out shortly. Please take the time to respond.
   - Matt Valenti, Bob Griffith, and Carolyn Atkins will be serving as faculty representatives to the presidential search committee.
   - According to Toni Christian, Director of Employee Benefits, efforts are being made to speed up the reimbursement time for travel forms.

6. Nick Perna, Chair, Senate Curriculum Committee, moved for approval of the following reports:

   Annex I, New Courses and Course Changes. Motion carried after HONR 213, HONR 414, and HONR 415 were pulled from the report.
   Annex II, Changes to the BS in Computer Science at WVU-Tech. Motion carried.
   Annex III, Monthly Alterations Report. Accepted.

7. Lisa Weihman, Chair, General Education Committee, presented the following:

   Annex IV, GEC Actions. Motion carried.
   Annex V, GEC Audits. Accepted.

8. Steve Bonanno, Interim Director, and Ann Bailey Berry, Associate Director, provided an update on WVU Extension Service. They introduced Gypsy Denzine, Associate Provost for Community Engagement and Outreach.

9. Glenn Dillon, WVCTSI Interim Director and Vice President for Health Sciences Research & Graduate Education, provided an overview of the West Virginia Clinical Translational Science Institute. Additional information is available at www.wvctsi.org.

10. Roy Nutter, ACF Representative, reported the following:
    - The SB330 letters sent out by faculty and staff were noticed by legislators and have had an impact.
    - The Fox Lawson report has been submitted to HEPC. Most of it is being set aside, although the classified staff portion may be used in some form.
    - He is serving on Common Ground, a group formed by HEPC's Associate Chancellor for Human Resources, Mark Toor. The group includes staff, faculty, and human resources representatives. They are reviewing multiple procedural and legislative rules.

11. Robert Griffith, BOG Representative, reported that the presidential search committee will meet January 17, 2014 to sign a confidentiality agreement.

12. New Business

    Ruth Kershner expressed concern that eCampus was unavailable until the first day of class. Notes, information, and syllabi need to be available earlier.

    Heather Billings reported that she is aware of two separate courses having had issues with the grading scales available on STAR. For some students, the A-F scale was available for a course that should have only been pass/fail. Dr. DiBartolomeo will follow up with the Office of the University Registrar.

13. The meeting adjourned at 5:01 p.m. to reconvene on Monday, February 10, 2014.

Judy Hamilton
Office Administrator

To: Faculty Senate Executive Committee
From: Nick Perna, Chair, Faculty Senate Curriculum Committee
Date: December 16, 2013
Re: New Courses and Course Changes

Honors College

New Courses:

HONR 213. Growing Up in America. 3 Hr. Students in this course explore how the issues of gender, race/ethnicity, social class, time period, and location shaped cultural understandings of the "child" and a child's experience as a child throughout American history. (Effective Date: Spring, 2014)

Rationale: One of the intentions of the Honors College curriculum is to increase the breadth of its students' knowledge by offering unique multi-disciplinary courses, a function previously served by the Honors Seminar. The Honors College is attempting to achieve this same end by putting in place specific courses, such as Growing Up in America. These courses are not only multi-disciplinary in content and field, but in student population as well. Students studying in such courses have the opportunity to consider topics that they might not otherwise be able to examine.

In, Growing Up in America, students draw upon a variety of disciplines, including cultural and social history, sociology, child development, literature and communication, to explore the varied understandings of the social construct called "the child." Additionally, during this course students utilize a variety of media—correspondence, journals, memoirs, prescriptive literature, oratory—to assist them in the difficult task of uncovering children's experiences as children are influenced by their gender, class, race or ethnicity, time period, and location.

HONR 414. American Faith/American Politics. 3 Hr. The Constitution's First Amendment guarantees religious freedom to all Americans. Is that guarantee a reality, an ideal, or a myth? Students in this course engage this provocative question from an outsider's perspective. (Effective Date: Spring, 2014)

Rationale: One of the intentions of the Honors College curriculum is to increase the breadth of its students' knowledge by offering unique multi-disciplinary courses. This function was previously served by the Honors Seminar. The Honors College is attempting to achieve this same end by putting in place specific courses, such as American Faith/American Politics. These courses are not only multi-disciplinary in content and field, but in student population as well. Students studying in such courses have the opportunity to study topics that they might not otherwise be able to examine. The overarching purpose of American Faith/American Politics is to engage and evaluate a very provocative argument regarding the nature of religious freedom in the United States. Students base their evaluation on two activities: a close reading of the text itself to evaluate the author's argument, method, and resource base, and a historical, anthropological, demographic, political and religious examination of a single minority religious/ethnic group in the United States, with the intention of determining how the group under consideration does or does not match the scholar's claim in the text read.

HONR 415. Families at War. 3 Hr. In this course, students discover how American families have participated in and experienced their nation's wars from the Revolutionary War to the Iraq/Afghanistan conflicts. Guest presenters–veterans and family members–provide course depth. (Effective Date: Spring, 2014)

Rationale: One of the intentions of the Honors College curriculum is to increase the breadth of its students' knowledge by offering unique multi-disciplinary courses. This function was previously served by the Honors Seminar. The Honors College is attempting to achieve this same end by putting in place specific courses, such as Families at War. These courses are not only multi-disciplinary in content and field, but in student population as well. Students studying in such courses have the opportunity to study topics that they might not otherwise be able to examine. Students who enroll in Families at War engage in a cooperative exploration of how the wars, in which the United States military has engaged and have influenced the lives of American families. They do so by engaging in primary source research into such areas as: family economics, communication, marital relations, and childrearing. They also consider how race, location, and time shape these areas. Each student shares his or her research with the other class members and then reformulated as a series of postings on a group blog. Additionally, students in Families at War have the opportunity to engage in first-person discussions with veterans and family members, an opportunity that adds significant emotional impact to the course materials.

College of Creative Arts

New Course:

Music

MUSC 410. Introduction to Music Industry. 3 Hr. Introductory overview of the music industry's history, business, technology, and law. Students will gain essential understanding and skills necessary for professional involvement and progress in the music industry. (Effective Date: Summer, 2014)

Rationale: This is the only course at the CCA covering the fundamentals of the music industry business, law, market, and professional practices. As such, it performs an essential function of introducing the basics of this professional field's business and legal aspects to primarily music majors and interested multi-disciplinary majors, enabling them to successfully enter and participate in the music industry systems.

College of Business and Economics

New Courses:

Management

GSCM 350. Sourcing and Supply Management. 3 Hr. PR or CONC: BCOR 360. Critical managerial issues in sourcing and supply management operations, structure, and processes, and supporting tools. Ethical, legal, and contractual issues pertaining to the global scope of this important set of business processes. (Effective Date: Fall, 2014)

Rationale: This course is required for the new area of emphasis (AoE) in Supply Chain Management within the Business Management program. It will support the general learning goals described below.

Graduates from this AoE will have the foundational knowledge and related technical skills to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities. In order to define the foundational knowledge pertaining to supply chain management, the curriculum design considered the widely accepted Supply Chain Operations Reference (SCOR) model, which is endorsed by the Supply Chain Council. The SCOR model is a comprehensive framework of high-level business processes, micro processes, relationships and metrics that jointly define the scope of supply chain management activity. Practitioners and academics approach the key activities defined by the SCOR model as foundations of the supply chain management domain. According to the SCOR model, the five key supply chain activities (or macro processes) are: Plan, Source, Make, Deliver and Return. The course is necessary for the AoE because it will provide students with the foundational knowledge and skills pertaining to the sourcing process of the supply chain management domain. This aspect includes the identification, selection, development and contracting of suppliers. In addition, this foundational knowledge and corresponding skills are necessary for graduates to be able to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities.

GSCM 355. Logistics and Distribution Management. 3 Hr. PR or CONC: BCOR 360. Critical managerial issues in the implementation and control of forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption. (Effective Date: Fall, 2014)

Rationale: This course is required for the new area of emphasis (AoE) in Supply Chain Management within the Business Management program. It will support the general learning goals described below.

Graduates from this AoE will have the foundational knowledge and related technical skills to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities. In order to define the foundational knowledge pertaining to supply chain management, the curriculum design considered the widely accepted Supply Chain Operations Reference (SCOR) model, which is endorsed by the Supply Chain Council. The SCOR model is a comprehensive framework of high-level business processes, micro processes, relationships and metrics that jointly define the scope of supply chain management activity. Practitioners and academics approach the key activities defined by the SCOR model as foundations of the supply chain management domain. According to the SCOR model, the five key supply chain activities (or macro processes) are: Plan, Source, Make, Deliver and Return. The course is necessary for the AoE, because it will provide students with the foundational knowledge and technical skills pertaining to the Delivery and Return aspects of the supply chain management domain. This aspect includes from entering customer orders and determining delivery dates to managing the storage and movement of goods to their final destination, as well as the return and processing of defective or excessive products or materials. In addition, this foundational knowledge and the corresponding skills are necessary for graduates to be able to

lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities.

GSCM 450. Supply Chain Quality Management. 3 Hr. PR: GSCM 350 and GSCM 355. Critical managerial issues in the organizational and behavioral dimensions of quality management systems and their application to simplify and improve supply chain processes, as well as key supporting methodologies and tools. (Effective Date: Fall, 2014)

Rationale: This course is required for the new area of emphasis (AoE) in Supply Chain Management within the Business Management program. It will support the general learning goals described below.

Graduates from this AoE will have the foundational knowledge and related technical skills to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities. In order to define the foundational knowledge pertaining to supply chain management, the curriculum design considered the widely accepted Supply Chain Operations Reference (SCOR) model, which is endorsed by the Supply Chain Council. The SCOR model is a comprehensive framework of high-level business processes, micro processes, relationships and metrics that jointly define the scope of supply chain management activity. Practitioners and academics approach the key activities defined by the SCOR model as foundations of the supply chain management domain. According to the SCOR model, the five key supply chain activities (or macro processes) are: Plan, Source, Make, Deliver and Return.

The course is necessary for the AoE, because it will provide students with a key technical competence that will allow graduates to "identify and define supply chain improvements projects" within the key foundational supply chain activities described above. In addition, this technical competence and associated skills are necessary for graduates to be able to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead supply chain activities.

GSCM 455. Project Management. 3 Hr. PR: BCOR 330 and PR or CONC: BCOR 360. Critical managerial issues in the planning, scheduling, organization, and management of projects. Project management process and tools and the effects of management style on the success of a project. (Effective Date: Fall, 2014)

Rationale: This course is required for the new area of emphasis (AoE) in Supply Chain Management within the Business Management program. It will support the general learning goals described below.

Graduates from this AoE will have the foundational knowledge and related technical skills to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead core supply chain activities. In order to define the foundational knowledge pertaining to supply chain management, the curriculum design considered the widely accepted Supply Chain Operations Reference (SCOR) model, which is endorsed by the Supply Chain Council. The SCOR model is a comprehensive framework of high-level business processes, micro processes, relationships and metrics that jointly define the scope of supply chain management activity. Practitioners and academics approach the key activities defined by the SCOR model as foundations of the supply chain management domain. According to the SCOR model, the five

key supply chain activities (or macro processes) are: Plan, Source, Make, Deliver and Return. As such, the course Project Management is necessary for the AoE, because it will provide students with a key technical competence that will allow graduates to "plan and execute supply chain improvements projects" within the key foundational supply chain activities described above. In addition, this technical competence and associated skills are necessary for graduates to be able to lead supply chain improvement projects, to function in supply chain teams, and to perform or lead supply chain activities.

Davis College of Agriculture, Natural Resources and Design

Agriculture and Resource Economics

Course Change:

From:

ARE 601. Applied Microeconomics. 3 Hr. PR: ECON 301 and ECON 421 or equiv. Producer and consumer economics used in resource, environmental, and agricultural analysis.

To:

ARE 601. Applied Microeconomics. 4 Hr. PR: ARE 401 or equiv. Consumer and production economics applied to resource, environmental, and agricultural analysis.

Rationale: This course combines the material that was previously presented separately in ARE 601 (Applied Microeconomics) and ARE 602 (Production Economics). The courses are being combined because many of the concepts presented in the separate courses overlap. It also provides students, within their first semester of the M.S. in Agricultural and Resource Economics, or Ph.D. in Natural Resource Economics, or Ph.D. in Resource Management, the theory and mathematical concepts that will be applied throughout their graduate program. The purpose of the course is to provide a mathematical and graphical understanding of consumer and production economic theory that students do not receive from undergraduate courses. The course augments the microeconomic theory that students receive in other courses and applies the theory to agricultural, resource, or environmental issues. It also prepares Ph.D. students for Microeconomics portion of the comprehensive qualifying exam that all Ph.D. students must complete at the end of their first year of study.

Statler College of Engineering and Mineral Resources

New Courses:

Mechanical and Aerospace Engineering

MAE 583. Thermodynamics and Kinetics of Materials. 3 Hr. Fundamental concepts of thermodynamics and kinetics of materials. Classical thermodynamics. Examples of application of thermodynamic concepts to the analysis of material systems. (Effective Date: Spring, 2014)

Rationale: The course has been designated as a Departmental graduate "core class" in the Materials Science & Engineering technical area within the MAE graduate program, so it is

critical to our curriculum. Also, to a) make the course number more properly fit the level of the material taught in the course (primarily at the Master's level), and b) to make the course accessible to senior undergraduate students who may be pursuing a direct track to the master program, we are proposing to change the course number to a permanent 500 level course number, MAE 583. No change made to course content.

College of Law

New Course:

LAW 627. Land Use/Sustnbl Devlp Clnc 1. 4-6 Hr. A clinical course offered to selected, upper level law students, who with faculty supervision, will provide transactional pro bono representation to clients regarding land and water protection. (Effective Date: Fall, 2014)

Rationale: The College of law faculty has determined this course to be invaluable as part of the law school curriculum, not only because practical clinical education is a significant component for training future lawyers, but also because environmental and land use law issues are pertinent to modern-day society. The course also fulfills the University's commitment to service, particularly to under-served areas. Considering the possibility that the course work load may vary from year to year, approving the course for 4-6 variable credits would eliminate any need to alter credit hours in the future, should the work load change. The flexibility of variable credit hours permits the instructors to determine the level of responsibility and clinical work requirements accordingly, while maintaining efficiency. It will also make this course consistent with other College of Law clinical courses. LAW 627 replaces LAW 628 which was originally approved in June 2012. An application to change LAW 628 to establish it as the second-semester of LUSD law Clinic is also being submitted for approval.

Course Change:

From:

LAW 628. Land Use/Sustnbl Dvlpmnt Clnc. 4 Hr. A course offered to selected second- and third-year law students, with faculty supervision, who will undertake projects and/or provide transactional pro bono representation to clients regarding land and water protection.

To:

LAW 628. Land Use/Sustnbl Dvlpmnt Clnc. 2. 4-6 Hr. PR: LAW 627. A continuation of LAW 627, presenting an opportunity for a higher level of responsibility, finalization of matters, and continued assistance for actual clients regarding land and water protection. (Effective Date: Fall, 2014)

Rationale: LAW 628 was originally offered as a 4-credit, 1-semester course, but since its inception, the Land Use Clinic faculty has found that there is increased student interest in additional land use clinical experience. Adding a second semester will provide an enhancement of skill development and aid the student in learning management of long-term projects and better fulfill the service goals of the clinic. With this course, WVU law students have a unique opportunity to engage in this area of law within the state, where such assistance is lacking. The developers of this course did not initially anticipate the level of student responsibility and

workload, or the demand for land use clinical work throughout the state. The LUSD Law Clinic is the first of its kind in the United States, so there wasn't a good model to follow for determining appropriate credit hours. The students manage high levels of responsibility to provide free technical assistance to local governments and community groups throughout WV (particularly southern WV). A significant part of student work involves travel to different parts of the state for field research and site visits, as well as extensive periods of time necessary for effective interaction with clients. Based on these factors, we are requesting that the credit hours be change to 4-6 variable credits. As stated above, the responsibilities and work load have increased substantially to merit an increase in credit hours, however, considering the possibility that the course work load may vary from year to year, approving the course for 4-6 variable credits would eliminate any need to readdress the credit hours for alteration at a future time, should the work load change. It will also make the course consistent with other College of Law clinics. Students currently work at least 180 hours/semester for 4 credits. At six credits, students will be expected to work at least 270 hours/semester on clinic related cases and projects. Therefore, we are seeking approval for LAW 628 to be changed to establish it as the second semester clinic course with an adjustment in credit hour value. There are other slight changes in course title, description, and expected learning outcomes. An application for LAW 627 is also being submitted to create a new course to be offered as the first semester component. It will be identified as: Land Use/Sustnbl Devlp Clnc 1.

College of Education and Human Services

New Courses:

Speech Pathology

SPA 625. Child Language & Literacy Disorders. 3 Hr. Course provides skills to characterize, prevent, evaluate, and manage childhood communication disorders in collaboration with families, educators, and other service providers. Application of evidence-based practice and implementation of appropriate care to enhance language and literacy development is emphasized. Family, cultural, and linguistic diversity are addressed. (Effective Date: Spring, 2015)

Rationale: Professional accreditation standards require that students receive coursework in the assessment and treatment of children with communication disorders. In order to meet the professional standard, this required course was developed and will be part of the SPA Graduate Curriculum.

SPA 741. Audiology Business Management Practices. 3 Hr. PR: Consent of the department. This course is intended to provide an overview of concepts involved in the development and management of audiology practices. Specific attention will be paid to business planning, financial and managerial accounting, marketing, human resources management, and other audiology practice management topics involved in daily operations. (Effective Date: Spring, 2014)

Rationale: This course provides students an introduction to audiology business practices necessary for successful operation of autonomous audiology practices. Material covered in this course is not covered in other courses within the Au.D curriculum; therefore, it is a necessary addition to the current curriculum. In addition, the course addresses several standards established

by the Council for Clinical Certification of the American Speech-Language-Hearing Association for professional certification of audiologists.

Eberly College of Arts and Sciences

New Course:

Leadership Studies

LDR 335. Women and Leadership. 3 Hr. The course uses academic literature related to leadership, women, and feminist theory to analyze differences in female and male leadership characteristics, behaviors, and effectiveness. (Effective Date: Fall, 2014)

Rationale: One of the goals of the minor in Leadership Studies is to "Explore how identity and culture impacts leadership in the United States and abroad." Identity as a woman will impact how people interact with and treat her as a leader. In addition, women leaders are a minority in West Virginia. This course is designed to assist both male and female students to use the academic literature related to women and leadership to analyze differences in female and male leadership characteristics, behaviors, and effectiveness.

P. I. Reed School of Journalism

New Course:

Integrated Marketing

IMC 630. Sports Marketing. 3 Hr. PR: Must be a student in the IMC program. Explores the history and present-day state of the sports marketing industry. Analyzes the field's major components, use of theory and research, consumers (aka fans), endorsements, sponsorships, branding, products, and, particularly, its sport stars. (Effective Date: Spring, 2014)

Rationale: This elective course has been successfully taught as an experimental offering (IMC 693L) for at least one session and has received positive feedback from the faculty and students as being a valued course in the curriculum. The course adds depth to the curriculum by addressing a growing and highly profitable area in the field of integrated marketing communications. The addition of this course to the curriculum also enables us to remain competitive with IMC programs at other universities and provides students with valuable knowledge concerning sports marketing that will help them with job and/or additional graduate school placement.

School of Public Health

New Courses:

Biostatistics

BIOS 700. Foundations of Modern Statistical Inference. 3 Hr. PR: Permission of instructor. The foundations and application of advanced statistical theory used in the field of biostatistics will be

presented, including likelihood theory with related estimation, asymptotic and inferential theory, and theoretical and computational procedures for missing data. (Effective Term: Fall, 2014)

Rationale: BIOS 700 will provide in-depth knowledge in advanced and modern methods for data analysis that will be critical in other advanced classes as well as performing dissertation research. Statistical likelihood techniques are crucial to the foundations of biostatistics and give students necessary skills to succeed in independent biostatistical research and collaboration.

BIOS 701. Modern Statistical Inference. 3 Hr. PR: BIOS 700 or permission of instructor. Advanced statistical theory for biostatistics will be presented, including estimation theory, semi-parametric theory, asymptotic and inferential theory, and algorithmically based estimators and inference. (Effective Date: Fall, 2014)

Rationale: BIOS 701 will provide knowledge in advanced and modern methods for data analysis that will be used throughout the students' coursework and independent research. Advanced statistical theory is crucial to the foundations of biostatistics and gives students necessary skills to succeed in independent biostatistical research and collaboration.

BIOS 720. Theory and Application of Linear Models. 4 Hr. PR: BIOS 700 or permission of instructor. This is a theoretical course in linear models for continuous responses and their applications. Topics include matrix theory, the multivariate normal distribution, multivariate quadratic forms, estimability, reparameterization, linear restrictions, estimation theory, weighted least squares, multivariate tests of linear hypotheses, multiple comparisons, confidence regions, and missing data. (Effective Date: Fall, 2014)

Rationale: BIOS 720 provides advanced knowledge of the theory and application of linear models, essential for any doctoral biostatistics student; the foundational skills learned in this course are required in subsequent required courses and almost assuredly will be needed for consulting and independent research that are part of the proposed biostatistics curriculum.

BIOS 721. Advanced Categorical Data Analysis for the Health Sciences. 4 Hr. PR: BIOS 700 or permission of instructor. This course offers an advanced examination of statistical theory and application of methods for models with categorical response data; concepts include likelihood theory and application, general linear models theory and application, estimating equations and contingency table methods. (Effective Date: Fall, 2014)

Rationale: Advanced categorical data analysis skills are necessary in virtually all medical and public health research; thus the accompanying theory and application of categorical data techniques are crucial to doctoral biostatistics students. These skills are useful for collaborative endeavors, as well as independent biostatistical research.

BIOS 740. Advanced Longitudinal Data Analysis. 4 Hr. PR: BIOS 720 or permission of instructor. This course gives an advanced understanding and approach to the analysis of longitudinal data; concepts include linear mixed effects models, generalized linear models for correlated data (including generalized estimating equations), computational issues and methods for fitting models, and dropout or other missing data. Knowledge of an appropriate software package and basic matrix algebra is assumed. (Effective Date: Fall, 2014)

Rationale: Longitudinal data are now pervasive in medical and public health research, yet its complexity necessitates an advanced course to ensure biostatistics graduates have a solid

foundation in the analysis of this type of data that they will almost assuredly encounter in their consulting experiences. Additionally, advanced understanding of longitudinal data techniques will potentially foster and improve dissertation research.

BIOS 745. Advanced Application of Linear Models. 1 Hr. PR: PhD Biostatistics major or permission of instructor. To be taken concurrently with STAT 645 (Linear Models), this course offers an understanding of advanced linear models as utilized in practice. Application of linear models across a range of research areas will be emphasized, covering computational techniques, practical issues that arise in utilizing linear models, and interpretation of results. (Effective Date: Fall, 2014)

Rationale: To be taught in conjunction with STAT 645, where students will learn the theory of linear models, this course will provide biostatistics students the application of linear model theory to real data observed in medicine and public health; these skills will be utilized in their collaborative partnerships and consulting experiences, as well as their independent research.

BIOS 764. Bayesian Biostatistics. 3 Hr. PR: BIOS 700 or permission of instructor. This course examines fundamental aspects of the Bayesian paradigm and will focus on Bayesian inferential methods with emphasis on biostatistics applications. Topics covered include: principles of Bayesian statistics; single-parameter and multi-parameter models; Bayesian linear and generalized linear models; Monte Carlo approaches to model fitting; Prior elicitation, with illustrations of a variety of computational methods. (Effective Date: Fall, 2014)

Rationale: Bayesian theory and methodology is becoming more prevalent in biostatistics, and this course provides students the opportunity to learn advanced principles of Bayesian statistics, presenting a variety of perspectives on statistical inference not seen in other required courses. Bayesian methodology can be used both in biostatistical collaboration, as well as independent research.

BIOS 765. Advanced Structural Equation Modeling. 3 Hr. PR: BIOS 610 and BIOS 611 or by permission of instructor. This course will focus on advanced structural equation modeling techniques important in public health contexts. Topics include basic psychometrics, path analysis and advanced structural equation modeling techniques, using relevant software packages. (Effective Date: Fall, 2014)

Rationale: For those students with ultimate interests or needs in collaborating with researchers in the social and behavioral sciences, an advanced knowledge of structural equation modeling is essential in allowing them to provide superior statistical support to their colleagues.

BIOS 788. Grant Writing for Biostatisticians. 2 Hr. This course gives an advanced conceptual and applied understanding of writing external grants in Biostatistics. Topics include writing grants as a principal investigator and assisting others in grant-writing as a co-investigator, with a focus on NIH grants. (Effective Date: Fall, 2014)

Rationale: Students will be able to use the knowledge learned in other advanced methodology courses to develop biostatistical scientific writing skills. This knowledge will prepare students to obtain future funding, enabling both better independent biostatistical research and collaboration.

West Virginia University Institute of Technology

BS in Computer Science
LCN College of Engineering and Sciences

Change of Curriculum

The department of Computer Science and Information Systems is proposing changes to the curriculum for B.S. in Computer Science (BSCS) major within the WVU Institute of Technology LCN College of Engineering and Sciences. The department is planning to apply for ABET accreditation for the BSCS program in 2014.

During last 3 years the BSCS program was assessed and reviewed at several different levels. We have acquired feedback from potential employers, current students, and prospective students regarding program objectives. The inputs received from the surveys were analyzed by the department faculty. The program was reviewed continuously in the department meetings and the proposed revisions were presented to 2012 and 2013 advisory board meetings for further review.

Proposed Changes to the Existing Curriculum

The following changes proposed by Computer Science and Information Systems department were approved by WVU Tech LCN College of Engineering and Sciences on the 26th of April, 2013.

1. Request to replace the requirement for CS 115 - Discrete Structures (3 hrs) with CS 220 - Discrete Mathematics (3 hrs)

The sophomore level Discrete Mathematics course, CS 220 will provide a stronger logical and mathematical foundation for WVU Tech Computer Science students. The Computer Science program at Lane Department of Computer Science and Electrical Engineering also requires CS 220.

2. Request to increase the number of hours for CS 122 – Computer Science II from 3 hours to 4 hours

In this change we are adding a lab component to CS 122 and we believe that this change will help students to build a stronger foundation for their education. This will also help retention efforts of the institution. (Course alteration is already approved.)

3. Request to no longer require CS 251 - Operations Workshop I (1 hr) and CS 252 - Operations Workshop II (1 hr)

These two courses fulfilled old WVU Tech citizenship requirement for all bachelor degrees. (WVU Tech no longer has this requirement.) The two courses CS 480 and 481, which we propose to add to the program (see item 9), emphasize the importance of team work, professional and ethical behavior, and community service. Therefore the values of CS 251 and CS 252 are still retained in the program.

4. Request to alter CS 265 - C programming (2 hrs)

The department plans to apply for ABET accreditation for the BS degree in Computer Science and ABET recommends that the curriculum contains a class that teaches a

procedural language. We have been offering C language using the two courses CS 265 and CS 365 (both are one hour courses titled Computer Languages). We propose to alter CS 265 to teach C programming (2 hrs) and use CS 365 to teach other languages. (The application for the course alteration was already submitted.)

5. Request to no longer require CS 279 - Sophomore Seminar (1 hr)

In our Computer Science program and Information Systems program, we have experimented with a seminar/research class in the second year in both programs and our experience is that the most of our sophomores are not ready for independent study. We also learned that one hour is not enough to provide a meaningful experience.

6. Request to replace the requirement for ECON 202 – Principles of Macroeconomics (3 hrs) with ECON 401 – Managerial Economics (3 hrs)

The department and advisory board believe that ECON 401 is a better Economics class for Computer Science graduates than ECON 202. WVU Tech has many double majors in Computer Engineering and Computer Science and the Computer Engineering program requires ECON 401. This change will make it easier for students to obtain degrees in both Computer Science and Computer Engineering.

7. Request to replace the requirement for CS 263 - Introduction to Networking (3 hrs) with CS 321 - Networking (3 hrs) and CS 324 - Database Management (3 hrs) with CS 264 - Database Management (3 hrs)

Courses in Networking and Database Management better prepare our students for local employment. In the state of West Virginia, there are virtually no job opportunities available for Computer Scientists who specialize only in Software Engineering and to be employed in the region the graduates should have a wider background. We believe that the Computer Science majors have to have a more advanced knowledge in networking and therefore we are switching to the higher level networking course. We will offer CS 324 less frequently so that students who would like to specialize in Database Management can take it to fulfill an elective requirement.

8. Request to require CS 450 – Operating Systems Structures (3 hrs)

This course is a continuation of CS 350 and we believe that our graduates should have a higher knowledge of operating systems concepts and structures. The Computer Science program at the Lane Department of Computer Science and Electrical Engineering also requires CS 450. This addition together with the replacements proposed in the items 1 and 10 will align WVU Tech program with Computer Science program at Lane Department of Computer Science and Electrical Engineering.

9. Request to replace the requirement for CS 322 - System Analysis and Design (3 hrs) and CS 461 - Senior Project (3 hrs) with CS 480 - Senior Design Seminar (2 hrs) and CS 481 - Senior Design Project (3 hrs)

Computer Science program at Lane Department of Computer Science and Electrical Engineering requires CS 480 and CS 481. WVU Tech Computer Engineering program require CPE 480 and CPE 481 (Capstone sequence for WVU Computer Engineering program that is cross listed with CS 480 and CS 481) and this change will also make it easier for WVU Tech students who are majoring in both Computer Science and Computer Engineering programs.

10. Request to no longer require one of the three require technical electives and one of the three lab sciences.

LCN College of Engineering and Sciences has directed the departments to investigate the possibility of reducing the degree requirements to 120 hours. This reduction in technical electives and lab sciences will make the total number of hours required by the program from 128 to 122 hours

General Education Curriculum (GEC)

Proposed Curriculum satisfies all GEC requirements.

GEC1: ENGL 101, ENGL 102, and ENGL 305 are required courses in the proposed program.

GEC 2: MATH 155, MATH 156, and two lab sciences are required by the proposed program.

GEC 3-9: ECON 401 –Managerial Economics is a required course BSCS and may also count for a GEC, but students may choose any courses to satisfy GEC 3-9.

Bachelor of Science in Computer Science
Current Curriculum

First Semester

ENGL	101	English Composition I	3
CS	115	Discrete Structures	3
CS	121	Computer Science I	4
GEC 3		Past and Traditions	3
GEC 4		Issues of Contemp. Soc.	3
WVUE	191	First Year Seminar	1
		Total Hours	17

Second Semester

ENGL	102	English Composition II	3
MATH	155	Calculus I	4
CS	122	Computer Science II	3
GEC 5		Artistic Expression	3
GEC 6		Individual in Society	3
		Total hours	16

Third Semester

MATH	156	Calculus II	4
GEC 2		Laboratory Science*	4
CS	201	Data Structures	3
CS	231	Intro to Computer Organization	3
CS	251	Operations Workshop I	1
		Total hours	15

Forth Semester

MATH	251	Mutivariable Calculus	4
GEC 2		Laboratory Science*	4
CS	221	Analysis of Algorithms	3
CS	222	Software Engineering	3
CS	252	Operations Workshop II	1
CS	279	Sophomore Seminar	1
		Total hours	16

Fifth Semester

MATH	441	Linear Algebra	3
ECON	202	Principles of Macro. (GEC 8)	3
CS	263	Intro to Networking	3
CS	310	Principles of Prog. Languages	3
		Laboratory Science	4
		Total hours	16

Sixth Semester

MATH	448	Probability and Statistics	3
ENGL	305	Scientific/Tech. Writing (W)	3
CS	322	System Anal. & Design	3
CS	324	Data Base Management	3
		CS Elective**	3
		Technical Elective***	3
		Total hours	18

Seventh Semester

CS	410	Compiler Construction	3
CS	461	Senior project	3
		CS Elective**	3
		Technical Elective***	3
GEC 7		American Culture	3
		Total hours	15

Eighth Semester

CS	350	Intro. To Operating Systems	3
CS	479	Advanced CS Math	3
		CS Elective**	3
		Technical Elective***	3
GEC 9		Non-Western Culture	3
		Total hours	15

* **Laboratory Science** is restricted to: BIOL 111, 112; CHEM 111, 112, 115, 116; PHYS 101, 102, 111, 112
** **CS electives** may be chosen from any 300-400 level class, except CS 491
*** **Technical Electives** may be chosen from the approved list

Total Hours 128

Bachelor of Science in Computer Science 2013-14
Proposed Curriculum

First Semester

ENGL	101	English Composition I	3
CS	121	Computer Science I	4
GEC 3		Past and Traditions	3
GEC 8		Western Culture	3
WVUE	191	First Year Seminar	1
		Total Hours	14

Second Semester

ENGL	102	English Composition II	3
CS	122	Computer Science II	4
GEC 5		Artistic Expression	3
GEC 9		Non-western Culture	3
GEC 7		American Culture	3
		Total hours	16

Third Semester

MATH	155	Calculus I	4
GEC 2		Laboratory Science*	4
CS	201	Data Structures	3
CS	231	Intro to Computer Organization	3
CS	265	C Programming	2
		Total hours	16

Forth Semester

MATH	156	Calculus II	4
GEC 2		Laboratory Science*	4
CS	310	Principles of Prog. Languages	3
CS	222	Software Engineering	3
CS	220	Discrete Mathematics	3
		Total hours	17

Fifth Semester

MATH	251	Multivariable Calculus	4
ECON	401	Managerial Economics	3
CS	321	Intro to Networking	3
CS	221	Analysis of Algorithms	3
		Technical Elective***	3
		Total hours	16

Sixth Semester

MATH	441	Applied Linear Algebra	3
ENGL	305	Scientific/Tech. Writing (W)	3
CS	350	Computer Systems Concepts	3
CS	264	Data Base Management	3
		CS Elective**	3
		Total hours	15

Seventh Semester

CS	410	Compiler Construction	3
CS	480	Senior Design Seminar	2
MATH	448	Probability and Statistics	3
GEC 6		Individual in Society	3
		CS Elective**	3
		Total hours	14

Eighth Semester

CS	450	Operating System Structure	3
CS	481	Senior Design Project	3
CS	479	Advanced CS Math	3
		CS Elective**	3
		Technical Elective***	3
		Total hours	15

* **Laboratory Science** is restricted to: BIOL 111, 112; CHEM 111, 112, 115, 116; PHYS 101, 102, 111, 112
** **CS electives** may be chosen from any 300-400 level class, except CS 491
*** **Technical Electives** may be chosen from the approved list

Total Hours 123

Approved Technical Electives for BS in Computer Science 2013-14

The following courses constitute the approved list of technical electives for students following the 2013-2014 required curriculum for a BS in Computer Science:

Accounting
ACCT 201 Principles of Accounting
ACCT 202 Principles of Accounting
ACCT 300-400 Level*

Biology
BIOL 111 General Biology I
BIOL 112 General Biology II
BIOL 300-400 Level*

Chemical Engineering
CHEE 300-400 Level*

Chemistry
CHEM 111 General Chemistry**
CHEM 112 General Chemistry**
CHEM 115 College Chemistry**
CHEM 116 College Chemistry**
CHEM 300-400 Level*

Computer Engineering
CPE 271
CPE 300-400 Level*

Computer Science
CS 225 C#
CS 266 e-Commerce
CS 270 Linux
CS 300-400 Level

Civil Engineering
CE 300-400 Level*

Electrical Engineering
EE 221 Circuits I
EE 223 Circuits II
EE 300-400 Level*

Finance
FINC 300-400 Level*

General Engineering
GENE 121 Statics
GENE 242 Dynamics
GENE 243 Mechanics of Materials
GENE 331 Fluid Mechanics

Mechanical Engineering
MAE 300-400 Level*

Mathematics
MATH 261 Elementary Differential Equations
MATH 300-400 Level except Math378*

Physics
PHYS 101 College Physics I
PHYS 102 College Physics II
PHYS 111 Physics for Scientists and Engineers I
PHYS 112 Physics for Scientists and Engineers II
PHYS 300-400 Level*

Special topic electives from other departments must be approved in advance.

* Check with Department Chair for approval
** Unless taken as a science requirement

College/School Sign-off

Contact person for this Application Date:__05-15-2013_____ Phone:____304 442 3362_____

Name (**Please type or print legible**): _____ Ranjith Munasinghe _____

PO Box : WVU Tech
Computer Science Email:___ Ranjith.Munasinghe @mail.wvu.edu_____

Signature: _____

Date: ___05-15-2013__	Approved By **(Please type or print legible)**: ___Ranjith Munasinghe_____ Approval Signature: _____ **(Department Curriculum Committee)**
Date: ___05-15-2013__	Approved By **(Please type or print legible)**: ___Ranjith Munasinghe_____ Approval Signature: _____ **(Chairperson of Department/Division)**
Date: _____	Approved By **(Please type or print legible)**: _____ Approval Signature: _____ **(College Curriculum Committee)**
Date: _____	Approved By **(Please type or print legible)**: _____ Approval Signature: _____ **(Dean or College or School)**

Approved by Faculty Senate Date: _____

Signature: _____ Curriculum Committee Chair

ARC Only

Date Received: _____ Date Entered: _____

To:
Faculty Senate Office, P.O. Box 6621.

Memorandum

To: Faculty Senate Executive Committee

From: E. James Harner, Chair-Elect
Senate Curriculum Committee

Date: 12/1/13

RE: Monthly Alterations Report

Action: Alterations (Minor Changes)

Sub Code	Course Number	Action	Old	New	Rationale	Effect Date
BUSA	310	Change prereq.	BUSA 310. Survey of Business Law. 3 Hr. PR: Junior Standing. Overview of business law discipline. Topics include laws and the court system, employment and labor law, business forms and capitalization, business competition law and business ethics.	BUSA 310. Survey of Business Law. 3 Hr. PR: Sophomore Standing. Overview of business law discipline. Topics include laws and the court system, employment and labor law, business forms and capitalization, business competition law and business ethics.	Changing course prerequisites in the catalog description from Junior standing to Sophomore standing in order to allow students to finish the minor courses in a timely manner.	201401
BUSA	320	Change prereq.	BUSA 320. Survey of Management. 3 Hr. PR: Junior Standing. Overview of management discipline as a process involving planning, organizing, controlling and directing. An integrated view of management including organizational behavior is emphasized.	BUSA 320. Survey of Management. 3 Hr. PR: Sophomore Standing. Overview of management discipline as a process involving planning, organizing, controlling and directing. An integrated view of management including organizational behavior is emphasized.	Changing course prerequisites in the catalog description from Junior standing to Sophomore standing in order to allow students to finish the minor courses in a timely manner.	201401

BUSA	330	Change prereq.	BUSA 330. Survey of Marketing. 3 Hr. PR: Junior Standing. Overview of the marketing discipline. Topics include the management of the product, communication, price, and distribution variables as well as an introduction to buyer behavior and marketing research.	BUSA 330. Survey of Marketing. 3 Hr. PR: Sophomore Standing. Overview of the marketing discipline. Topics include the management of the product, communication, price, and distribution variables as well as an introduction to buyer behavior and marketing research.	Changing course prerequisites in the catalog description from Junior standing to Sophomore standing in order to allow students to finish the minor courses in a timely manner.	201401
MUSC	704	Removal of PR and correct catalog language	MUSC 704. Opera Theatre. 0-2 Hr. PR: MUSC 104 or Consent. Continuation of MUSC 104. Performance of major roles and advanced production techniques. Qualified students will undertake production-direction projects under supervision.	MUSC 704. Opera Theatre. 0-2 Hr. Performance of major roles and advanced production techniques. Qualified students will undertake production-direction projects under supervision.	Removal of PR and catalog language to correct error in previous submission. The former MUSC 104 course no longer exists.	201408
PSYC	202	Change prereq.	PSYC 202. Research Methods in Psychology. 3 Hr. PR: PSYC 101 and STAT 211. Research methods in experimental, developmental, clinical, and community-social psychology in the laboratory and the natural environment.	PSYC 202. Research Methods in Psychology. 3 Hr. PR: PSYC 101 and (STAT 201 or STAT 211). Research methods in experimental, developmental, clinical, and community-social psychology in the laboratory and the natural environment.	This is only a change in the PR. Both STAT 211 and 201 prepare students for PSYC 202.	201405
PSYC	362	Change prereq.	PSYC 362. Psychological Assessment. 3 Hr. PR: (PSYC 202 or PSYC 231 or PSYC 232 or PSYC 241 or PYSC 251 or PSYC 293) and at least Junior standing. Psychometric theory and development of psychological assessment instruments. Includes behavioral, personality,	PSYC 362. Psychological Assessment. 3 Hr. PR: PSYC 202 and at least Junior standing. Psychometric theory and development of psychological assessment instruments. Includes behavioral, personality, intellectual, neuropsychological,	This is only a change in PR. The course is a research oriented upper level course that requires research methods as a prerequisite. The course instructor has requested this change.	201405

			intellectual, neuropsychological, forensic, achievement, and aptitude assessment.	forensic, achievement, and aptitude assessment.		
STAT	211	Change prereq. and title expansion.	STAT 211. Elemntry Statistical Inference. 3 Hr. PR: MATH 124 or MATH 126. (Not open to students who have completed STAT 215.) Basic concepts of descriptive and inferential statistics: descriptive measures, random variables, sampling distributions, estimation, tests of hypotheses, chi-square tests, regression and correlation. (Equivalent to Econ 225.)	STAT 211. Elementary Statistical Inference. 3 Hr. PR: MATH 126 or higher. Basic concepts of descriptive and inferential statistics: descriptive measures, random variables, sampling distributions, estimation, tests of hypotheses, chi-square tests, regression and correlation. (Not open to students who have completed STAT 215; equivalent to Econ 225.)	MATH 124 is no longer taught. The intent has always been to have algebra as the minimum requirement for STAT 211, i.e., a student with MATH 155 meets the requirement, but would be blocked under the current system. Stating "MATH 126 or higher" as a PR is easy for the student to understand. Internally, the specific courses will be listed. [MATH 126A, MATH 126B, MATH 126C, MATH 128, MATH 129, MATH 150, MATH 153, MATH 154, MATH 155, MATH 156, MATH 231, MATH 232, MATH 238, MATH 251]	201401

Course Drops

Memorandum

Date: December 16, 2013

To: Faculty Senate Executive Committee

From: Lisa Weihman, Chair
General Education Curriculum Oversight Committee

Re: GEC Actions

The General Education Curriculum Oversight Committee met on December 2, 2013 and recommends the following courses for Faculty Senate approval:

Approved New GEC Course:
ENGR 199, Orientation to Engineering (Obj. 6F)
HONR 199, Orientation to Honors (Obj. 6F)

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 (3+ hr)
5. Artistic Expression (3+ hr)
6. The Individual in Society (4+ hr) [Note 6F = First Year Seminar (1+ hr required)]
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: December 16, 2013

To: Faculty Senate Executive Committee

From: Lisa Weihman, Chair
General Education Curriculum Oversight Committee

Re: GEC Audits – For Information Only

The GEC Oversight Committee met on December 2, 2013 and passed the following courses for GEC Audit:

GEC Successful Audits:
FCLT 210, Chinese Culture and Civilization (Obj. 3 & 9)
FCLT 310, Chinese Cinema (Obj. 5 & 9)
FLIT 216, Chinese Literature in Translation I (Obj. 5 & 9)
FLIT 217, Chinese Literature in Translation II (Obj. 5 & 9)

Writing Requirement Successful Audits:
FLIT 216, Chinese Literature in Translation I
FLIT 217, Chinese Literature in Translation II

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 (3+ hr)
5. Artistic Expression (3+ hr)
6. The Individual in Society (3+ hr) [Note 6F = First Year Seminar (1+ hr required)]
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)