Minutes The West Virginia University Faculty Senate Monday, February 11, 2013

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.	Connors, J.	Huffman, V.	Miltenberger, M.	Scott, H.
Abraham, R.	Cottrell, L.	Iskander, W.	Moritz, J.	Sperow, M.
Ameri, S.	Cronin, A.	Johnston, A.	Munasinghe, R.	Stack, S.
Anderson, J.	Curtis, R.	Kale, U.	Nichols, A.	Stolzenberg, A.
Anderson, K.	DiBartolomeo, L.	Kershner, R.	Nutter, R.	Tallaksen, R.
Atkins, C.	Elmore, S.	Kirby, B.	Osborne, E.	Turton, R.
Baldwin, C.	Etzel, E.	Kite, S.	Peace, G.	Valenti, M.
Barretto, G.	Ferrara, L.	Knight, J.	Perna, N.	Veselicky, K.
Bastress, R.	Finkel, M.	Kopriva, N.	Perone, M.	Vona-Davis, L.
Bilgesu, I.	Fint-Clark, B.	Kromar, R.	Polak, J.	Weihman, L.
Blake, L.	Funk, A.	Kuhlman, J.	Prudhomme, J.	Wenger, S.
Boone, D.	Graber, S.	Lofaso, A.	Putman, H.	Woloshuk, J.
Bowen, E.	Griffith, R.	Mandich, M.	Reddy, R.	Wood, A.
Brazaitis, M.	Harner, J.	Matak, K.	Rockett, I.	Yang, H.
Brock, R.	Harris, T.	Mays, M.	Ruscello, D.	
Bryner, R.	Hartley, D.	Meckstroth, R.	Ryan, K.	
Cassels, A.	Hileman, S.	Merrifield, J.	Sand-Jecklin, K.	
Cohen, S.	Hostuttler, L.	Miller, M.	Schreurs, B.	
Members Excused	1.			
Britten, R.	Graves, C.	Orlikoff, J.	Rose, T.	Watson, J.
Brooks, R.	Kleist, V.	Paternostro, M.	Sherlock, L.	watson, J.
Campbell, L.	Lastinger, V.	Petronis, J.	Sherwin, M.	
Davis, S.	Lorimer, D.	Petty, T.	Tuninetti, A.	
Famouri, P.	Oberhauser, A.	Reymond, R.	Watson, D.	
1 amouri, 1 .	Obernauser, A.	Keymond, K.	Watson, D.	
Members Absent:				
Anfinson, J.	Fisher, M.	Holmes, M.	Lieving, G.	Tower, L.
Bergner, G.	Fuller, E.	Hornsby, G.	Livengood, R.	Whiteman, C.
Carpenter, C.	Hashmi, M.	Huber, J.	Nelson, C.	Wilcox, G.
Dino, G.	,		,	,
Faculty Senate Of		I D		
Cottrell, L.	DiBartolomeo, L.	Lee, P.	Mays, M.	

- 2. Chair Mays moved for approval of the minutes from the Monday, January 14, 2013 meeting. <u>Motion carried</u>.
- 3. President Clements reported on the following issues:
 - One of his highest priorities at the moment is to raise private funds. We have crossed the \$600 million mark towards our \$750 million goal. We will make a major gift announcement tomorrow at 10:00 a.m.

- Our bond ratings were reaffirmed by Moody's and Standard and Poor's.
- He provided an enrollment update. Freshman applications are down about 3%; admits are down less than 1%. We are making gains in higher-end students. Graduate applications are up nearly 8% from last year; admits are up 15%.
- Earlier today, we signed a new partnership with the Ohio State University based around research on shale gas utilization.
- Last month we signed an MOU with the U.S. Defense Information School to train military personnel from all branches to serve as communications specialists. He congratulated the School of Journalism for leading this partnership.
- A Benedum Foundation grant will allow 265 first year students in the Schools of Medicine, Dentistry, Nursing, and Pharmacy to participate in health screenings of themselves and then work on a health improvement plan to address at least one issue. This will provide students a first-hand experience as they work with counseling patients about changing behavior relative to preventive health care.
- The Department of Communication Studies launched our first larger-scale MOOC in social media topics.
- He thanked the panel from the CEHS that put together the forum related to the Sandy Hook tragedy.
- He congratulated Dr. Lisa DiBartolomeo on being named the Armand E. and Mary W. Singer Professor in the Humanities.
- Three of our online programs were ranked by U.S. News & World Report: nursing (21), education (26), and business (29).
- 2011 Family Day at the WVU Farm was honored with an award from the Council for Advancement and Support of Education (CASE). The event won a silver award in the category of community relations programs, projects, and special events. The event is coordinated by the Office of University Events, the Davis College and the WVU Extension Service.
- Every student in our School of Medicine passed the United States Medical Licensing Exam on their first try. The exam is taken between years two and three.
- For the 12th time in 13 years, a team of students from WVU will be participating in the NASA Reduced Gravity Education Flight Program at the Johnson Space Center in Houston. We are one of 14 teams selected nationally. Dr. John Kuhlman is the advisor.
- Two of our graduate students won top honors for their research during an international poultry conference held in Atlanta. One student won the paper award in the Metabolism and Nutrition Section, and the other won the poster award in the Metabolism and Nutrition Section. Both are graduate students in nutritional and food science in the Davis College.
- The Carruth Center for Psychological and Psychiatric Services earned accreditation by the International Association of Counseling Services. WVU is only one of 192 universities in the world to receive that accreditation.

- The legislative session gets under way on Wednesday. He will be present for the governor's State of the State Address. The governor will introduce the budget; we are probably looking at a budget cut.
- He congratulated students, faculty, and others who worked on the production of "Carmen" for a magnificent performance.
- 4. Senior Associate Provost Russ Dean reported on the following issues:
 - The search committee is almost in place for the Associate Provost for Engagement and Outreach. Elizabeth Dooley will chair the committee. Nigel Clark is working on finalizing committee membership.
 - The Dean of Libraries search is underway. The search committee meets on Monday to review applications and determine the next steps.
 - Reviews are scheduled this spring for two deans: Joyce McConnell from the College of Law and Dana Brooks from the College of Physical Activity and Sport Sciences. The review committees should begin their work within the next 2-3 weeks.
 - He introduced John Campbell, new Chief Information Officer.
- 5. Chair Mays reported on the following issues:
 - He thanked Karen Anderson for coordinating a presentation from the Department of Psychology prior to today's meeting.
 - He met with John Campbell, Vice President for Research Fred King, and Mitch Finkel, Chair of the Senate Research and Scholarship Committee. Fred King will address the Senate next month.
 - He met with Nichelle Perkins, Deputy Diversity Officer for Equity, as well several other faculty members and members of the university council. Lisa DiBartolomeo organized the meeting in connection with today's agenda item regarding the proposed inclusivity statement.
 - There was an informal meeting with the chair and chair-elect of the Committee on Committees concerning plans for committee assignments for next year. One idea is to have a preliminary session before the June meeting to give new Senators an overview of committee roles.
- 6. Dennis Ruscello, Chair, Senate Curriculum Committee, moved for approval of the following reports:

Annex I, New Courses and Course Changes. <u>Motion carried</u>. Annex II, Curriculum Change for the Forest Resources Management Program. <u>Motion carried</u>. Annex III, Capstone Course for WMAN 450. Motion carried.

Annex IV, Monthly Alterations Report, was submitted for information.

7. April Johnstone, Chair, Student Instruction Committee, moved for approval of the following:

Annex V, Guidelines for Absences Due to Military Service Requirement. Motion carried.

8. Lisa DiBartolomeo moved for approval of the following:

Annex VI, Inclusivity Statement.

An amendment was moved and seconded to add to the statement giving contact information for students who would like to understand how the policy is being implemented by the Division of Diversity, Equity and Inclusion. <u>Amendment carried</u>.

Motion carried as amended.

- 9. Dean Sue Day-Perroots provided a presentation on Massive Open Online Courses. Her PowerPoint presentation will be posted on the Faculty Senate web site.
- 10. Roy Nutter, ACF representative, reported that:
 - He attended the ACF meeting on January 31, 2013, as well as the CCTC and HEPC meetings.
 - Talks are ongoing with respect to merging Kanawha Valley CTC and Bridgemont CTC.
 - There is discussion, especially in the 2-year schools, of charging per-credit hour tuition rates.
 - There appears to be a push from the legislature for outcomes-based funding, which targets the number of graduates.
 - The Higher Learning Commission is rescinding the final 30 hours mandate for 4-year institutions.
 - Moody's Report on Higher Education was a recurring topic of discussion.
- 11. Robert Griffith, BOG representative, reported that:
 - The Board of Governors will meet in Morgantown on February 21-22, 2013. The meeting will begin with a luncheon and tour of the School of Medicine.
 - With respect to third tier rights, the Media Rights Analysis Panel was unanimous in its opinion that IMG College provided WVU with the best promised guaranteed financial returns, and in accordance with its fiduciary responsibility, approved entering into the contract with IMG.
- 12. Meeting adjourned at 4:46 p.m. to reconvene on Monday, March 11, 2013.

Mary Strife Faculty Secretary To: Faculty Senate Executive CommitteeFrom: Dennis Ruscello, Chair, Faculty Senate Curriculum CommitteeDate: January 28, 2013Re: New Courses and Course Changes

Eberly College of Arts and Science

New Courses:

Communication Studies

COMM 601. Instructional Communication. 3-Hr. Survey of the theory and research in instructional communication. Emphasis is placed on the study of instructional communication behaviors and the role instructor-student communication plays in the instructional setting. (Effective Term: Fall, 2013) (CIP 099999)

Rationale: This course will be required for all Ph.D. students enrolled in the Ph.D. program in Communication Studies; it will serve as an introduction to the field of Instructional Communication, which is one of three options of study for Ph.D. students. It is a theory and research based course in which students will learn about the various perspectives and paradigms of instructional communication, the extensive research conducted to date on the various communication-based impressions that students make about instructors and the various communication behaviors that instructors use in the instructional settings, and the association between these impressions and behaviors and student learning outcomes.

<u>History</u>

HIST 317. German Central Europe, 1648-1900. 3-Hr. Explores empires, states and nations in Central Europe; it includes the Habsburg Monarchy and Holy Roman Empire following the devastation of 30 years of War, Enlightenment, State-building, Industrialization and Nation-Building to the Great War. (Effective Term: Spring 2013) (CIP 540101).

Rationale: This course meets student demand for pre 20th study of German Central Europe and reflects new approaches to nation-building and political culture. It serves as an important prerequisite for the capstone course on Topics in German History, History 484. It serves as an important upper level option for students focusing on Europe - one of the 3 tracks in the History Major. It serves as an important upper level option for students interested in pre-modern Europe. It offers an important trans-national perspective on Europe, and it moves beyond traditional national histories.

HIST 318. Twentieth Century German Central Europe. 3-Hr. Explores the two World Wars, Holocaust, the Cold War, National Socialist, Communist, and Democratic regimes and Austria as well as the reunification of Germany following Revolutions of 1989. (Effective Term: Spring 2013) (CIP 540101).

Rationale: This course meets student demand for 20th study of German Central Europe and reflects new approaches to war and society. It serves as an important pre-requisite for the capstone course on Topics in German History, History 484. It serves as an important upper level option for students focusing on Europe - one of the 3 tracks in the History Major. It serves as an important upper level option for students interested in modern Europe. It offers an important trans-national perspective on Europe, and it moves beyond traditional national histories.

HIST 360. America in the 1960s. 3-Hr. Examines the social, cultural, political and economic events and outcomes of the 1960s, including the civil rights movement, political economy, new left, counterculture, Great Society, rights movements, and the conservative ascendancy. (Effective Term: Fall 2013) (CIP 540101)

Rationale: This course provides an in-depth analysis of one of the most conflict-ridden decades in modern U.S. history that significantly impacted such areas as human and civil rights, environmental policy, universities, foreign policy, popular culture, politics, and a wide variety of social programs. Understanding the 1960s era provides students with the intellectual tools to understand and analyze history form that period onward to the present. This course will expand the offerings of the department in modern U.S. history and will fulfill upper level requirements for a history major.

HIST 517. German Central Europe: Empires, States and Nations, 1648-1900. 3-Hr. Explores the Habsburg Monarchy and Holy Roman Empire, following devastation of 30 Years of War, Enlightenment and State-building, Industrialization and Nation-Building until the eve of the Great War. (Effective Term: Spring 2013) (CIP 540101)

Rationale: The History Department needs a 500 level course in German Central Europe to support grad students who work in European history and for Atlantis graduate students. The course offers graduate students new methodological and thematic approaches to a complex transnational region. The course will help prepare graduate students for a 700 reading and research seminar sequence and for comprehensive field exams. Graduate students will attend lectures and discussions for the undergraduate section of this course (History 317), and it will meet on several other occasions for seminar discussions with the instructor to discuss additional assigned readings and key historiographical issues.

HIST 518. German Central Europe in the Twentieth Century. 3 Hr. Explores the two World Wars, Holocaust, the Cold War, National Socialist, Communist, and Democratic regimes and Austria as well as the reunification of Germany following Revolutions of 1989. (Effective Term: Spring 2013) (CIP 540101)

Rationale: The History Department needs a 500 level course in German Central Europe to support grad students who work in European history and for Atlantis graduate students. The course offers graduate students new methodological and thematic approaches to a complex transnational region. The course will help prepare graduate students for a 700 reading and research seminar sequence and for comprehensive field exams. Graduate students will attend lectures and discussions for the undergraduate section of this course (History 318), and it will meet on several

other occasions for seminar discussions with the instructor to discuss additional assigned readings and key historiographical issues.

Geology

GEOL 579. Applied Petroleum Geoscience. 3-Hr. Students work in teams to conduct integrated characterization of a petroleum reservoir, develop numerical simulation, consider technical options, perform economic analyses and make a final report to the company/ organization. (Effective Term: Spring 2013) (CIP 400601)

Rationale: Basic questions in the geosciences require knowledge of the sub-surface reservoir and aquifer rock and fluid properties, and the spatial distribution of reservoir flow units, structural elements (e.g. faults) and facies. Students gain hands on experience with real-world data to undertake the challenges of understanding the Earths subsurface from an integrated geoscience, engineering and economic perspective. Students work in geoscientist engineer teams to conduct geological, geophysical and engineering characterization of a petroleum reservoir. The teams develop a numerical simulation model, consider various options, quantify uncertainty, perform project economic analyses and make a final report to representatives of company/organization at the end of the semester. A final report will include a written documentation, but the major focus will be effective communication of technical results to outside decision-makers, and development of a realistic plan to execute recommendations. This course integrates all the concepts and skills learned in geology, geophysics and engineering courses within an economic framework. Students learn to work in teams with classmates that have diverse skills and approaches. Concepts and skills learned in this class are essential to addressing subsurface problems associated with a variety of applications in fossil fuels and mineral exploration and environmental assessment.

College of Education and Human Services

New Courses:

Curriculum and Instruction

RDNG 423. Literacy and the Young Child. 3-Hr. This course studies essential emergent literacy skills in young children and examines ways that these skills are developed in primary grade classrooms and at home. (Effective Term: Spring 2013) (CIP 131315)

Rationale: This course was developed to meet the requirements mandated by the WV Department of Education, Policy 2525. The policy requires that teachers in Pre-K classrooms must complete course work approved by the WVDE in the areas of preschool special needs, child development, preschool curriculum, early language and literacy, assessment of young children and family involvement. RDNG 423 is a requirement for three tracks in the Child Development and Family Studies program.

Speech Pathology and Audiology

SPA 738. Professional Issues. 2-Hr. PR: Consent. Discussion of contemporary professional issues in audiology. (Effective Term: Summer 1, 2013) (CIP 510204)

Rationale: For decades, Master's students in speech-language pathology and in audiology were combined in a single class entitled, SPA 638: Professional Issues. This practice was continued in 2004, when the Master's degree in audiology was terminated and replaced with a Doctor Audiology (AuD) program. However, divergence of the two disciplines' scope of practice necessitates creation of an independent, 700-level course in the AuD program of study.

Course Change:

From:

SPA 608. Hearing-Impaired School Child. 2-Hr. Audiology in the public school classroom; remediation for the hearing-impaired child.

<u>To</u>:

SPA 608. Audiological Foundations. 2-Hr. Study of the knowledge and skills in audiology that speech-language pathologists need to treat individuals with hearing impairment. (Effective Term: Summer 1, 2013) (CIP 510204)

Rationale: Entry level requirements for the profession of speech-language pathology (Standard III-C) specify that applicants must demonstrate knowledge of the nature of hearing disorders, including the etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates. Specific knowledge of the impact of hearing loss on speech and language must be demonstrated. The current course title and description are out-of-date and must be revised to meet current professional standards.

College of Business and Economics

New Course:

Management

ILR 546. Training & Development. 3-Hr. Survey of the domain and issues of the field of training and development and practical approach to designing and conducting training and development programs. Topics include both scientific issues and applied issues. (Effective Term: Spring, 2014) (CIP 521002)

Rationale: The course is being added as a permanent requirement of the two year MSIR program course of study.

School of Public Health

New Course:

Biostatistics

BIOS 624. BIOS Consulting Experience. 2-Hr. PR: BIOS 623. Students will gain practical experience in the Biostatistics Consulting Group, under the guidance of the faculty director of the group, to assist with general consulting for the HSC. (Effective Term: Fall, 2013) (CIP 512201)

Rationale: The course will provide students with important skills and knowledge in Biostatistics. It will reflect the ASPH Public Health Competencies which are nationally accepted as a framework for public heath graduates studies and provide the basis for the "Certified in Public Health" exam, the national credentialing exam in public health. Students must be able to understand and apply these concepts in order to successfully complete in today's market and to be responsive to the rapidly changing field of public health. The course will provide students practical consulting experience that will help prepare them for a career in biostatistics.

Statler College of Engineering and Mineral Resources

Computer Science

New Course:

CS 630. Empirical Methods in SENG & CS. 3-Hr. An in-depth study of the scientific process and guidelines for empirical research, particularly addressing surveys, case studies, and controlled experiments. Covers in details the qualitative and quantitative data analysis methods commonly used in empirical investigations. (Effective Term: Spring 2013) (CIP 110701)

Rationale: The Computer Science curriculum is lacking a class that systematically addresses empirical studies that employ scientific methods to analyze large and complex real-world datasets. Software Engineering and Computer Science researchers and practitioners alike can benefit from the ability to make assessment and predictions based on empirical data. Therefore, CS 630 will serve as an MS core course and a PhD Qualifier core course in LCSEE's graduate area 4, Software and Knowledge Engineering.

West Virginia University Forest Resources Management Program Davis College of Agriculture, Natural Resources and Design

Curriculum Change Document

The Forest Resources Management program is proposing changes to the curriculum for the B.S. in Forest Resources Management major within the Division of Forestry and Natural Resources. The last change in the curriculum for the Forest Resources Management program was made in conjunction with the West Virginia University adoption of the General Education Curriculum in 2004. In the past 6 years, enrollment has increased and remained strong and concerted efforts have been made on an annual basis to review the curriculum, student strengths and weaknesses as well as acquiring feedback to our program through our alumni, our Division Review Committee and existing and potential employers. It is through all the mentioned inputs that we request a change in the current curriculum. The proposed changes will not change the required credit hours for the bachelor of science degree in Forest Resources Management.

Changes to the Existing Curriculum:

- We request dropping Careers in Natural Resources 2 (FOR 203), as the curriculum significantly overlaps topics covered in Careers - Natural Resources Management (FOR 101) and Agriculture and Natural Resources Communication (AGEE 421) or other approved public speaking elective. This is a 1 credit hour course currently scheduled during the fall of the sophomore year.
- 2. We request the addition of a new course, Winter Dendrology (FOR 206). This is a 1 credit hour course that consists of laboratory field instruction focused on the identification of woody plants during the dormant season. It is scheduled for the spring semester of the senior year, but could be taken any spring semester following the completion of Dendrology (FOR 205) which concentrates on the identification of woody plants during leaf-on conditions. We have taught this course as a special topics elective over the past few years and have had increasing enrollment and significantly improved field identification skills. This is also a component in which employers rank high in importance. Since this is a new course number, the course add form has been submitted to the Senate Committee on Curriculum.
- 3. We request the addition of Harvesting Forest Products (WDSC 422) and the removal of Land Surveying (CE 200). The request is based on the fact that surveying skills, although valuable, are generally no longer needed for employment as most employers are requiring licensed surveyors to complete these tasks. In addition, alumni and employers have indicated that in a region where timber harvesting and road design and layout is of critical environmental importance, that we require specific education in this area. WDSC 422 is an existing course, but will experience a significant increase in enrollment pending this approval. Attached is a letter of support from Dr. Jingxin Wang, program coordinator of the Wood Science and Technology program area in support of this addition.
- 4. The faculty within the Forest Resources Management program area, request a change in the degree program such that any **required** FOR, FMAN or FHYD course be completed with a

final grade of "C" or better. This would include the following courses based on this current curriculum change request:

FOR 101	FOR 240
FOR 205	FMAN 222
FOR 326	FMAN 212
FMAN 311	FOR 438
FMAN 330	FMAN 433
FOR 421	FOR 206
FMAN 434	FMAN 400
FHYD 444	

I have discussed the addition of WDSC 422 Forest Harvesting and Roads to the Forest Resources Management curriculum with Dr. John R. Brooks, Program Coordinator for that program area. I am in support of the addition of this class to their required course list.

Dr. Jingxin Wang Program Coordinator Wood Science and Technology

Addendum

Current Curriculum Structure

We require the completion of 128 credit hours of coursework. Required courses include biological, physical, and social sciences, English composition, communication, mathematics, forest science and management, and liberal studies. We require a six-week summer field practice; this period, along with laboratories in several of our courses, provides ample opportunity to gain field experience. Overall, we have designed the curriculum to provide the needed blend of scientific, technical, and managerial knowledge professionals need to manage public or private forest resources. Elective hours are used to develop additional professional competence in specialized areas.

Freshman Year

Freshman fear	
ENGL 101 Composition and Rhetoric	3
BIOL 101 General Biology	3
BIOL 103 General Biology	
CHEM 111/115 Fundamentals of Chemistry	4
FOR 101 Careers-Natural Resources Management	1
MATH 126 College Algebra	
PLSC 206 Principles of Plant Science	1
MATH 150/155 Introduction to Calculus/Calculus 1	5
FOR 240 Intro. Computing-Natural Resources	
WDSC 100 Forest Resources in U.S. History or GEC Obj. #3	
Sophomore Year	-
FOR 205 Dendrology	3
STAT 211 Elementary Statistical Inference	
FOR 203 Careers and Natural Resources	
FMAN 222 Forest Mensuration	
ECON 201 Principles of Microeconomics	3
FMAN 212 Forest Ecology	
WMAN 234 Wildlife, Management	
FMAN 400 Forest Resource Management Field Practice	6
FOR 326 Remote Sensing of Environment	3
ENGL 102 Composition and Rhetoric	ŝ
ENGL 305 Technical Writing	
	-
Junior Year	
FMAN 311 Silvicultural Systems	1
WDSC 223 Wood Anatomy and Structure	X
ECON 202 Principles of Macroeconomics	
AGEE 421 Agricultural/Natural Resource Communications	
or Approved COMM Elective	ł
FMAN 330 Principles of Forestry Economics	
AGRON 202 Principles of Soil Science	
AGRON 203 Principles of Soil Science	
WDSC 232 Wood Grading & Procurement	
FOR 438 Human Dimensions of Natural Resources Management	
	0
Senior Year	
FMAN 433 Forest Management	R
FOR 421 Renewable Resources Policy and Government	
WDSC 422 Forest Harvesting and Roads	3
ENTO 470/PPTH 470 Forest Pest Management	
FHYD 444 Watershed Management	т २
FMAN 434 Forest Resources Management Planning	3
Additional GEC requirements, not elsewhere covered	2
Electives	
Total128	2
120	·

Proposed Curriculum Structure

We require the completion of 128 credit hours of coursework. Required courses include biological, physical, and social sciences, English composition, communication, mathematics, forest science and management, and liberal studies. We require a six-week summer field practice; this period, along with laboratories in several of our courses, provides ample opportunity to gain field experience. Overall, we have designed the curriculum to provide the needed blend of scientific, technical, and managerial knowledge professionals need to manage public or private forest resources. Elective hours are used to develop additional professional competence in specialized areas. **Curriculum Requirements Hrs.**

Freshman Year

ENGL 101 Composition and Rhetoric	3
BIOL General Biology.Lecture	
BIOL General Biology Lab	
CHEM Introductory Chemistry Option	
FOR 101 Careers-Natural Resources Management	1
MATH 126 College Algebra	3
PLSC 206 Principles of Plant Science	
MATH 150 Applied Calculus	
FOR 240 Intro. Computing-Natural Resources	

Sophomore Year

FOR 205 Dendrology	3
STAT 211 Elementary Statistical Inference	3
FMAN 222 Forest Mensuration	4
ECON 201 Principles of Microeconomics	3
FMAN 212 Forest Ecology	3
WMAN 234 Wildlife, Management	3
FMAN 400 Forest Resource Management Field Practice	6
FOR 326 Remote Sensing of Environment	3
ENGL 102 Composition and Rhetoric	3

Junior Year

FMAN 311 Silvicultural Systems	4
WDSC 223 Wood Anatomy and Structure	3
ECON 202 Principles of Macroeconomics	3
Public Speaking Elective	3
FMAN 330 Principles of Forestry Economics	
AGRON 202 Principles of Soil Science	3
AGRON 203 Principles of Soil Science	1
WDSC 232 Wood Grading & Procurement	3
FOR 438 Human Dimensions of Natural Resources Management	

Senior Year

FMAN 433 Forest Management	3
FOR 421 Renewable Resources Policy and Government	
WDSC 422 Forest Harvesting and Roads	
ENTO 470/PPTH 470 Forest Pest Management	
FHYD 444 Watershed Management	
FMAN 434 Forest Resources Management Planning	
FOR 206 Winter Dendrology	1
Intensive Writing Course	3
Additional GEC requirements, not elsewhere covered	
Electives	7
Total	

FOREST RESOURCES MANAGEMENT CURRICULUM - Required Courses

FRESHMAN YEAR

FALL SEMESTER

	COURSE	TITLE	HRS.
	ENGL 101	Composition & Rhetoric	3
	BIOL [*]	General Biology Course with lab	4
	CHEM [*]	Introductory Chemistry Course	4
	FOR 101	Careers in Natural Resource Mgmt.	1
	MATH 126	College Algebra	3
Total Hours			15

Total Hours

* Options listed on the bottom of page 2

SOPHOMORE YEAR

FALL SEMESTER

	COURSE	TITLE	HRS.
	FOR 205	Dendrology	3
	STAT 211	Elementary Statistical Inference	3
	ENG 102	Composition & Rhetoric	3
	FMAN 212	Forest Ecology	3
Total Hours			12

Total Hours

SUMMER TERM

	COURSE	TITLE	HRS.
	FMAN 400	Forest Resources Mgmt. Field Practice	6
Total Hours			6

JUNIOR YEAR

FALL SEMESTER

COURSE	TITLE	HRS.
FMAN 311	Silvicultural Systems	4
WDSC 223	Wood Anatomy & Structure	3
ECON 202	Principles of Macroeconomics	3
	Public Speaking Elective	3
FOR 438	Human Dimensions of Nat. Res. Mgmt.	3
Total Hours		

Total Hours

SENIOR YEAR

FALL SEMESTER

	COURSE	TITLE	HRS.
	FMAN 433	Forest Management	3
	FOR 421	Renewable Res. Policy & Governance	3
	WDSC 422	Forest Harvesting and Roads	3
	"W-Course"	WVU Intensive Writing Course	3
Total Hours			12

REQUIRED COURSE HOURS 106 ADDITIONAL GEC REQUIREMENTS 15 FORESTRY RESTRITED ELECTIVES 7 TOTAL HOURS 128

SPRING SEMESTER

	COURSE	TITLE	HRS.	
	PLSC 206	Principles of Plant Science	4	
	MATH 150	Applied Calculus	3	
	FOR 240	Intro. to Computing in Nat. Resources	3	
Total Hours				

SPRING SEMESTER

COURSE TITLE HRS. FMAN 222 Forest Mensuration 4 ECON 201 Principles of Microeconomics 3 Forest Wildlife Management WMAN 234 3 FOR 326 Remote Sensing of Environment 3 13

Total Hours

SPRIN	IC SE	MES	TED	

0. 1							
	COURSE	TITLE	HRS.				
	FMAN 330	Principles of Forest Economics	4				
	AGRN 202	Principles of Soil Science	3				
	AGRN 203	Principles of Soil Science Lab.	1				
	WDSC 232	Wood Grading & Procurement	3				

Total Hours

11

SPRING SEMESTER

	COURSE	TITLE	HRS.	
	ENTO/PPTH 470	Forest Pest Management	4	
	FMAN 434	Forest Resource Mgmt. Planning	3	
	FOR 206	Winter Dendrology	1	
	FHYD 444	Watershed Management	3	
Total Hours				

General Education Curriculum Classes:

WVU's curriculum includes requirements for classes from 9 GEC objectives. Below are those objectives and classes that the Forest Resources Management program suggests to meet these requirements as well as those of the major. Note that suggested Objective 2 courses (Math and Sciences- 13-15 hrs) are listed in the required courses section with some suggested options listed below in the Sciences. The courses listed as suggested for meeting Objectives 4 and 8 also count for the major program.

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 credit hours)

Objective 4: Contemporary Society (3 hrs)

ECON 201 or equivalent is suggested as it is a required course (3 hrs)

Objective 5: Artistic Expression (3 hrs)

____GEC Objective 5 (3 credit hours)

<u>Objective 6:</u> The Individual in Society – (3 hrs) Note: 4 hours are required but 1 credit (FOR 101) is accounted for in the required courses section.

_____ GEC Objective 6 (3 credit hours)

Objective 7: American Culture (3 hrs)

____ GEC Objective 7 (3 credit hours)

Objective 8: Western Culture (3 hrs)

ECON 202 or equivalent is suggested as it is a required course (3 hrs)

Objective 9: Non-Western Culture (3 hrs)

_____ GEC Objective 9 (3 credit hours)

Biology Options:

BIOL 101/103 General Biology with lab BIOL 102/104 General Biology with lab

BIOL 115 Principles of Biology

Chemistry Options:

CHEM 111 Survey of Chem. CHEM 115 Fund. of Chem. With the 106 credit hours of required coursework and 15 credit hours to meet the University's GEC requirements, there are an additional 7 hours of restricted elective credits required to complete the degree. The elective credits can be obtained within the student's major through the following courses or by approval of the student's academic advisor:

West Virginia's Natural Resources (FOR 140)

Winter Dendrology (FOR 206)

Survey of Arboriculture (FMAN 315)

Advanced Forest Inventory (FMAN 322)

Natural Resource Entrepreneurship (FOR 340)

Arboriculture & Trees in the Landscape (FMAN 393)

Regional Silviculture (FMAN 413)

Vegetation of West Virginia (FOR 424 – summer only)

Global Forest Resources (FOR 425)

Forestry Consulting (FMAN 440)

Forest Valuation & Investment (FMAN 450/650)

Forest Management Independent Study (FOR 470)

Professional Field Experience (FMAN 491)

Urban Forest Management (FMAN 493)

Senior Thesis (FMAN 496)

Recreation, Parks and Tourism Management (RPTR Elective)

- RPTR 142 Introduction to Recreation/Parks/Tourism (F)
- RPTR 242 Environmental/Cultural Interpretation (S)
- RPTR 239 Sustainable Tourism Development (F)

Course Number Credits

Capstone for: WMAN 450, Advanced Wildlife & Fisheries Management

College: Davis College of Agriculture, Natural Resources and Design

Department/Program: Division of Forestry and Natural Resources / Wildlife and Fisheries Resources Program

Course(s) in which the Capstone Experience is fulfilled: WMAN 450 Advanced Wildlife & Fisheries Management

For the above course(s), please provide a statement that illustrates how a student in the course would demonstrate each of the following abilities:

1. Gather material independently, as needed:

Students in this class are required to complete four short papers (2-4 pgs each) as well as write up and present the results of either a management plan or research project developed as part of the WMAN 300, Wildlife & Fisheries Techniques Class. These assignments require students to gather relevant research articles from scientific journals to support their work and their writings. One of the assignments is to turn in a research grant proposal for any wildlife or fisheries research topic they choose. Another requires students to gather a scientific journal article (from the last 3 years) and write a critique of the experimental design and statistical treatment and legitimacy of the hypothesis and objectives of the study. The capstone research project or management plan is presented in written (report), oral format, and as an undergraduate research poster. Each requires the student to independently gather documentation to support their approach and methods as well as the discussion sections.

2. Think critically about and to integrate the theoretical and/or practical knowledge that they have acquired throughout their undergraduate careers:

The WMAN 450 capstone class addresses critical thinking and integration of practical knowledge acquired throughout their undergraduate careers in a variety of ways. Critical thinking and knowledge must be demonstrated to successfully complete the management plans or research projects. Student knowledge and critical thinking is further assessed in classroom problem exercises and discussions where students are provided with sample situations and data and asked to respond as they might in a professional setting under those circumstances. Classroom discussions allow students to fully explore possible interpretations of data and responses from both a biological and human dimension perspective. Student knowledge is also assessed through a written and oral examination covering the Knowledge, Skills, and Abilities (KSAs) that professional wildlife and fisheries personnel have described as expected attributes of successful graduates. A complete list of 102 KSA's is provided to students as freshmen in WMAN 175 and they self-assess their KSA knowledge there and again as seniors in this capstone class as another form of program assessment.

3. Reflect on the ethical (or societal) issues that are implicit in their project and/or their project's design:

The ethical and societal issues related to the student projects revolve around honesty and integrity of data collection, intellectual property rights, and care and humane treatment of animals (if they are handled as part of the project). Each student prepares a proposal as part of the WMAN 300, Wildlife and Fisheries Techniques class. The proposal is revised and eventually approved by the instructor. Students then collect any necessary data during the 1.5 yrs between Fall of junior year and spring semester of senior year when they take this capstone class (WMAN 450). Students are expected to demonstrate many of the KSAs as part of their data collection, analysis, interpretation and writing. They are expected to show ethics in this process (not fabricating data, not plagiarizing materials or work of others). For projects involving animals, students are to handle them according to guidelines approved for their study by the Institutional Animal Care and Use Committee.

4. Please describe briefly how the written component of the Capstone Experience in the course(s) listed above is completed.

The written component is completed through the write-up of the student's management plan or research project. These are typically 12-25 pages in length- double spaced and 12 pt font. Students are also required to write four shorter writing assignments that are each of 2-4 pages length.

5. Please describe briefly how the oral component of the Capstone Experience in the course(s) listed above is completed.

The oral component is satisfied through a 20 minute oral presentation of the management plan or research project. Students also give short presentations in class related to the management exercises and interact with people while attending their posters (of capstone projects). Finally, students each have an individual one-on-one oral interview that tests their knowledge of KSAs and prepares them for professional interviews.

Memorandum

- To: Faculty Senate Executive Committee
- From: Nicholas Perna, Chair-Elect Senate Curriculum Committee
- Date: 1/28/2013
- **RE:** Monthly Alterations Report

Sub Code	Course Number	CIP	Action	Old	New	Rationale	Effect Date
BCOR	340	520801	Add PR alternative.	BCOR 340. Business Finance. 3 Hrs. PR: ACCT 202 and ECON 202 and ECON 225. Activities of the finance manage in the planning, acquisition and administration of funds used in a business enterprise.	BCOR 340. Business Finance. 3 Hr. PR: ACCT 202 and ECON 202 and ECON 225 or STAT 211. Activities of the finance manager in the planning, acquisition, and administration of funds used in a business enterprise.	Add PR of STAT 211 as an alternative to ECON 225. The WVU course catalog recognizes STAT 211 as an equivalent course for ECON 225. Currently when students register for BCOR 340 after having taken STAT 211 they have to receive a PR override. This change corrects that process.	201305
CHEM	110A	400501	Add placement exam score to PR.	CHEM 110. Introduction to Chemistry. 2 Hr. Required for students whose performance on ACT/SAT/placement examination indicates need for introductory work before enrolling in other chemistry courses. Scientific terminology and concepts; chemical arithmetics; chemical symbols, formulae and	CHEM 110A. Introduction to Chemistry A. 1 Hr. PR: Students must obtain a satisfactory score on the placement examination and must register for both CHEM 110A and CHEM 110B in the same term. Required for students whose performance on ACT/SAT/placement examination indicates need for introductory work before	Add language regarding performance on placement examinations as a part of the requirement for enrollment. This language was omitted in the original submission.	201305

			equations; mole concepts; problem solving. May not count for credit toward graduation if taken after credit for another course in chemistry has been established. (1 hr. lec., 1 hr. rec.).	<pre>enrolling in other chemistry courses. Elementary scientific terminology and concepts; simple chemical arithmetics; chemical symbols, formulae and equations; and mole concepts. May not count for credit toward graduation if taken after credit for another course in chemistry has been established (3 hrs. lec. per week for 1/2 semester).</pre>		
CS	122	Change credit hours and course description.	CS 122. Computer Science 2. 3 hr. PR: CS 121 with a grade of "C" or better. Continuation of Computer Science 1 with more advanced topics including file processing, access methods, elementary data structures and their implementation in a high level language.	CS 122. Computer Science 2. 4 hr. PR: CS 121 with a grade of "C" or better. Software development with abstract data types; elementary data structures including lists, stacks, and queues; development of algorithms; classical sorting and search techniques; design methodology; file processing; recursion; and object- oriented design and development. WVU-Tech course.	Change credit hours from 3 to 4 to allow for the addition of a lab portion of the course. The majority of students who take the course have needed one-to-one help to successfully meet the learning outcomes. This change will strengthen the foundational skills for Computer Science majors. Change of course description reflects the addition of the lab portion.	201308

DANC	140	500301	Change credit hours and course descript- ion.	DANC 140. Fundamentals of Tap. 1 Hr. (May be repeated for a maximum of 4 credit hours.) Basic tap dance technique, including study of basic tap vocabulary, fundamental rhythms, loco motor movements and tap styles.	DANC 140. Fundamentals of Tap. 2 Hr. (May be repeated for a maximum of 4 credit hours.) A studio course designed to introduce the student to the genre of tap dancing. The course will introduce and teach the student beginner level models, movement phrases and techniques through styles of the genre.	Following the renumbering of DANC courses last year the change of credit hours and course description allows for better sequencing and alignment with other courses in the Dance minor and proposed Dance major.	201308
DANC	220	500301	Change PR,course title and description.	DANC 220. Intermediate Modern Technique. 2 Hr. PR: DANC 100 or DANC 260 or consent. (May be repeated for a maximum of 6 credit hours.) Intensive concentration of technique form, interpretation, and artistic sensitivity of performance. Barre and center practice developing in difficulty as to length and complexity will enhance the level of execution.	DANC 220. Intermediate Modern. 2 Hr. PR: DANC 100 or Consent. (May be repeated for a maximum of 6 credit hours.) Topics covered include intermediate modern dance technique, dance vocabulary, dance literacy, proper alignment, musicality, and sound anatomical practices. The course focuses on core styles within the modern dance genre.	Following the renumbering of DANC courses last year the change of PR, course title, and course description allows for better alignment with other courses in the proposed Dance major.	201308
DANC	260	500301	Change PR and course title.	DANC 260. Fundamentals of Choreography 1. 2 Hr. PR: DANC 100. Introductory study of basic elements of choreography including spatial design, choreographic devices, movement analysis, the creation of movement phrases, and creative problem solving.	DANC 260. Fundamentals of Choreography. 2 Hr. PR: DANC 100 or 110 or 130. Introductory study of basic elements of choreography including spatial design, choreographic devices, movement analysis, the creation of movement phrases, and creative problem solving.	Following the renumbering of DANC courses last year the change of course title and PR allows for better alignment with other courses in the proposed Dance major.	201308

DANC	310	500301	Change PR and course description.	DANC 310. Advanced Ballet. 2 Hr. PR: DANC 142. (May be repeated for a maximum of 8 credit hours.) Advanced technique of classical theatrical dancing. An in-depth continuation of adage, allegro, and Pointe work. Combinations and choreographic studies will be a focus of training. Fundamentals will also be developed.	DANC 310. Advanced Ballet. 2 Hr. PR: DANC 210 or Consent. (May be repeated for a maximum of 6 credit hours.) Topics covered include advanced ballet dance technique, dance vocabulary, dance literacy, proper alignment, musicality, and sound anatomical practices.	Following the renumbering of DANC courses last year the change of course description and PR allows for better alignment with other courses in the proposed Dance major.	201308
DANC	320	500301	Change PR, course title and course description.	DANC 320. Advanced Modern Technique. 2 Hr. PR: DANC 100 or DANC 220 or DANC 260. (May be repeated for a maximum of 6 credit hours.) Advanced tutorial techniques relating advanced theories and individual study in the design of technique, style, and compositional form.	DANC 320. Advanced Modern. 2 Hr. PR: DANC 220 or consent. (May be repeated up to a maximum of 6 credit hours.) Topics covered include advanced modern dance technique, dance vocabulary, dance literacy, proper alignment, musicality, and sound anatomical practices.	Following the renumbering of DANC courses last year the change of course title and course description and PR allows for better alignment with other courses in the proposed Dance major.	201308
DANC	370	500301	Change PR, course title and description.	DANC 370. History and Philosophy-Dance. 3 Hr. A study of dance history and philosophy and prominent personalities in the world of dance through their legacy of techniques, choreographies, and performances.	DANC 370. Dance History. 3 Hr. PR: DANC 100 or DANC 170. A study of dance history and leading prominent personalities in the field of dance through their legacy of techniques, choreography and performance. The course will also address the contribution of dance to, and the place of dance within, society and the cultural environment.	Following the renumbering of DANC courses last year the change of course title, course description, and PR allows for better alignment with other courses in the proposed Dance major.	201308

DANC	371	500301	Change PR, course description, and credit hours.	DANC 371. Creative Dance for Educators. 2 Hr. PR: DANC 100. Specific learning experiences for the future of dance education and competencies to be achieved for children's dance. Grades K-12. Integration of movement experience with other academic subjects and various cultural heritages emphasized.	DANC 371. Creative Dance for Educators. 3 Hr. PR: DANC 100 or DANC 170. Specific learning experiences for the future of dance education and competencies to be achieved for children's dance. Grades PK-12. Integration of movement experience with other academic subjects and various cultural heritages emphasized.	Following the renumbering of DANC courses last year the change of course description and PR allows for better alignment with other courses in the proposed Dance major. Change in credit hours better reflects the student workload for the course.	201308
DANC	400	500301	Change PR.	DANC 400. Choreography Practicum. 2 Hr. PR: DANC 260 and DANC 360. (May be repeated for a maximum of 6 credit hours.) Students participate as choreographers in a dance production. Contact the director of Dance for audition information.	DANC 400. Choreography Practicum. 2 Hr. PR: DANC 260 and consent. (May be repeated for a maximum of 6 credit hours.) Students participate as choreographers in a dance production. Contact the director of Dance for audition information.	Following the renumbering of DANC courses last year the change of PR allows for better alignment with other courses in the proposed Dance major.	201308
ENTR	335	520701	Add PR.	ENTR 335. Small Business Entrepreneurship. 3 Hr. This course offers a study of the concepts necessary to become a successful small business entrepreneur. The course work includes practical application of marketing and management skills.	ENTR 335. Small Business Entrepreneurship. 3 Hr. PR: BUSA 202. This course offers a study of the concepts necessary to become a successful small business entrepreneur. The course work includes practical application of marketing and management skills.	The addition of PR provides adequate background in accounting principles to better prepare for the course.	201308

ENTR	435	520701	Remove PR.	ENTR 435. New Venture Creation. 3 Hours. PR: ENTR 320 and ENTR 335. This course will provide the student with an in- depth understanding of the issues involved in the planning and creation of a new venture. The student will be exposed to the various roles of the entrepreneur.	ENTR 435. New Venture Creation. 3 Hours. PR: ENTR 335. This course will provide the student with an in- depth understanding of the issues involved in the planning and creation of a new venture. The student will be exposed to the various roles of the entrepreneur.	ENTR 320 is no longer necessary as a PR due to the necessary information being covered in ENTR 335.	201308
NSG	376	511601	Change PR and course description.	NSG 376. Clinical Nursing Pharmacology. 3 Hr. PR: Junior standing and Coreq: NSG 332. Principle of pharmacology with an emphasis on nursing role in accurate drug administration and patient assessment. Pharmacological management is analyzed with Pathophysiology. Particular emphasis is on patient/family teaching of pharmacological goals in order to maximize health potential.	NSG 376. Clinical Nursing Pharmacology. 3 Hr. PR: NSG 212; Coreq: NSG 311. Principles of pharmacology emphasizing scholarly inquiry and evidence-based reasoning to insure accurate knowledge of and administration of medications to individuals and families across the lifespan. Pharmacological management is analyzed in conjunction with pathophsyiology.	The PR was changed to reflect new courses in the BSN curriculum. The course description was changed to better align with core competencies and key concepts in the undergraduate nursing curriculum.	201308
WMAN	450	030601	Change course title.	WMAN 450. Adv Wildlife/Fisheries Mangmnt. 4 Hours. PR: WMAN 300. Principles and practices of wildlife and fisheries habitat and species management.	WMAN 450. Adv. Wildlife and Fisheries Management Capstone. 4 Hr. PR: WMAN 300. Principles and practices of wildlife and fisheries habitat and species management.	The course title was changed to reflect its "Capstone" status.	201308

Course Drops

DANC 271. History & Philosophy of Dance

SPED 621. Culminating Practicum: SMD

Guidelines for Absences Due to Military Service Requirement

In accordance with the "Veteran Friendly" designation, WVU faculty may allow students who are members of the US Armed Forces (including the National Guard and Active Reserve) to make up tests and assignments that are missed during a semester if the student is officially called up for military service requirements for a limited period; and if the delayed coursework completion will not irreversibly impact the students' ability to appropriately master the required subject matter . Absence due to required military obligation should not exceed a cumulative amount of three weeks, and the students should follow the appropriate protocol as presented below.

Proposed Class Absence Due to Military Service

West Virginia University is a "Veteran Friendly" institution and as such recognizes its obligations to students who serve in the US military. Although there is a university expectation that all students attend all of their classes, the choice to serve in the military should not negatively impede academic progress and faculty members should be responsive to the needs of our students who choose to serve in the military. The WVU community has many students who serve in the National Guard or Active Reserve. As an institution, WVU recognizes that there are times when Armed Forces students need to miss class (normally for up to three weeks) due to call-ups for military service during a semester.

This section outlines the guidelines and the appropriate steps to follow should a student be obligated to miss class due to official military service requirements.

Prior to entering into an agreement with the student regarding the missed coursework due to a proposed absence associated with military obligations, the faculty member must first evaluate if the absence timing and/or duration imposes an inability to complete the course successfully.

Should the faculty member determine that missing classes and the associated work for the duration of the absence would negatively impact grades or the likelihood of a successful course completion, the student should meet with his or her advisor immediately to determine the appropriate course of action.

Should the faculty member and the student agree that special accommodations and flexibility could provide the opportunity for the student to successfully complete the course, a written agreement between the student and the faculty member will be finalized that incorporates a formal student plan of action. Once an agreed upon student plan of action is in place, if the plan is followed, students will not be penalized for absences due to a military service requirement. The plan of action may require that all course requirements be completed within the semester of the absence, or may permit that an incomplete grade be issued for the semester of the absence, with stipulated and agreed upon subsequent completion dates and requirements for the student.

If the student and faculty member are unable to reach a resolution, the student may then approach an academic advisor, the department chair, and the dean for further discussion and guidance.

Students are responsible for:

a. Notifying faculty members of such circumstances as far in advance as possible;

b. Providing documentation to the course instructor, vetted by the Veterans Advocate office, to verify the reason for the absence;

c. Furnishing the time and date of the planned absence to the faculty.

d. Completing all course requirements and meeting the agreed upon plan of action.

Instructors are responsible for:

a. Providing reasonable accommodations or opportunities to make up examinations or other course assignments that can impact the course grade;

b. Grading the student with an Incomplete for the course if, in the opinion of the instructor, the volume of the course work cannot be completed by the student in the time left in the semester.

c. Developing a plan with the student to complete the required course work for a letter grade.

Inclusivity Statement

Rationale

The following statement on inclusivity is meant as a replacement for the current "Social Justice Statement." Rather than offering a list of groups, this new statement suggests a positive philosophy of inclusion and diversity, one more in line with the goals of the 2020 Strategic Plan. In clear and straightforward language, the new statement presents a positive, aspirational vision supported by West Virginia University, rather than a policy mandated by Federal Law. This new statement arose in consideration of similar statements from the other Big 12 universities, as well as in consultation with the President's Office for Diversity and University Legal Services. The statement would be henceforward included in syllabuses.

Statement for Approval:

The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.