

MINUTES OF THE MEETING
OF THE ACADEMIC POLICIES AND PROCEDURES COMMITTEE

October 1, 2014

The AP&P Committee met on Wednesday, October 1, 2014 at 3:00 p.m. in the William C. Strickland Conference Room of I.G. Greer Hall.

Committee members present: Dr. Jon Beebe, Dr. Kim Hall, Dr. Ellie Hoffman, Dr. Joe Klein, Dr. Kathleen Lynch-Davis, Mr. Jason Miller, Mr. Edgar Peck, Dr. Janice Pope, Dr. Ben Powell, Dr. Rene Salinas, Mr. John Wiswell, Mr. Mason Calhoun, Ms. Abby Hamrick, Ms. Paige Marley, Mr. Carson Rich

Committee members excused: Dr. Dinesh Davé

At 3:04 p.m., Mike Mayfield noted that we have a quorum and he called the meeting to order. New and returning members were introduced. Dr. Mayfield reminded the committee that the official vote is by voice.

ELECTION OF CHAIR:

Dr. Mike Mayfield opened the floor for nominations for the position of Chair of the Academic Policies and Procedures Committee. A motion was made and seconded to nominate Ben Powell.

VOTE 1 – To close nominations – PASSED

Hearing no other nominations or objections, a motion was made to approve Ben Powell as Chair of the AP&P Committee for the 2014-15 academic year.

VOTE 2 – To approve Ben Powell as chair - PASSED

SELECTION OF A PARLIAMENTARIAN:

The next item on the agenda was to select a Parliamentarian for the AP&P Committee. This committee is run by *Robert's Rules of Order*. Dr. Powell asked for nominations or volunteers from the voting members who would be interested and willing to serve as the Parliamentarian.

Paige Marley nominated Abby Hamrick.

VOTE 3 - To close nominations – PASSED

Hearing no objections, a motion was then made to approve Abby Hamrick as Parliamentarian of the AP&P Committee for the 2014-15 academic year.

VOTE 4 - To approve Abby Hamrick as Parliamentarian - PASSED

MINUTES

April 30, 2014

VOTE 5 – To approve the April 30, 2014 minutes - PASSED

Announcements

1. “For Information Only” memo/list of items approved by the General Education Council on September 26, 2104. (Effective: Fall 2015)

- **Theme Proposals for Integrative Learning Experience**

Appalachian Mountains: Community, Culture, and Land

Critical Consciousness: Learning for Equity and Justice

Cultivating Creative Expression

Experiencing Inquiry: How to Ask Questions

How We Know What We Know About the Past

How We Tell Stories

Imagination, Innovation, and Meaning

Intersections: Race, Class, and Gender

Las Americas

Sustainability and Global Resources

War and Peace

American Life: Past and Present*

Empire, Colonialism, and Globalization*

Revolutions and Social Change*

*Name will be changed to differentiate from current Gen Ed theme

- **GEN ED: Capstone Experience**

ENG 4826 Capstone In the Age of Chaucer

2. A revision was required to the system wide Academic Standing Policy per UNC-General Administration. See attached document at the end of the minutes.

3. The “Maximum Transfer Hours” Proposal, originally approved by AP&P on January 16, 2012 for implementation in Fall 2013 will be delayed until Fall 2014. See attached document at the end of the minutes.

4. RCOE announces a new Second Academic Concentration: Language, Literacy, and the English Learning. See attached document at the end of the minutes.

5. Department changes approved by the Chancellor over the summer.

- The Department name of Computer Information Systems (CIS) was changed to the Department of Computer Information Systems and Supply Chain Management (CIS) effective Fall 2014.
- The Bachelor of Arts in Economics (45.0601) with four concentrations was moved from the College of Arts and Sciences to the Walker College of Business effective July 1, 2014.
- The name of the Watauga Global Community (WGC) was changed to Watauga Residential College (WGC) effective Fall 2014.

New Business

Order of Presentation:
Reich College of Education
College of Arts and Sciences

The proposals from the Reich College of Education were presented for the Department of Human Development and Psychological Counseling, the Department of Reading Education and Special Education, and Department of Family and Consumer Sciences.

The proposals from the Department of **Human Development and Psychological Counseling** were approved as follows: (EFFECTIVE: FALL 2015)

COE_HPC_MFT_2014_1 Course Addition:
HPC 6525. Advanced Systemic Multicultural Counseling (3).S.
An exploration of counseling issues related to a culturally diverse client population. Prerequisite: HPC 5110.

COE_HPC_MFT_2014_2 Add a graduate certificate in Systemic Multicultural Counseling (447A/51.1505) in the department of Human Development and Psychological Counseling. The new program of study is at the end of the minutes.

VOTE 6 – To approve the proposals from HPC - PASSED

The proposals from the Department of **Reading Education and Special Education** were approved as follows: (EFFECTIVE: FALL 2015)

COE_RESE_2014_1 Delete the post-master's graduate certificate in Reading Education (475A/13.1315).

Add a graduate certificate in Reading Education (449A/13.1315) in the department of Reading Education and Special Education. The new program of study is at the end of the minutes.

VOTE 7 – To approve the proposals from RESE – PASSED

The proposals from the Department of **Family and Consumer Sciences** were approved as follows: (EFFECTIVE: FALL 2015)

COE_FCS_2014_01 Delete the Bachelor of Science in Child Development: Birth Through Kindergarten (524A/13.1209)[T]. **Contingent upon approval by UNC-GA.**

COE_FCS_2014_02 Add a concentration in Birth Through Kindergarten (510G)[T] to the Bachelor of Science in Child Development (510*/19.0706). The new program of study is at the end of the minutes.

VOTE 8 – To approve the proposals from FCS - PASSED

Dr. Dru Henson presented the proposals from the College of Arts and Sciences for the Department of Chemistry, the Department of Computer Science, Department of English, and Department of Physics and Astronomy.

The proposals from the Department of **Chemistry** were approved as follows: (EFFECTIVE: FALL 2015)

- CAS_CHE_2013_05 Change the prerequisite statement for CHE 4000. Chemistry Seminar to read as follows:
“Prerequisites: CHE 3000, CHE 3301, and CHE 3303.

POS affected: 214B, 214D, 214E, 214F, 214H, 214I, 216A
- CAS_CHE_2013_06 Change the prerequisite statement for CHE 4620. Environmental Chemistry and make a grammatical change to the course description to read as follows:
CHE 4620. Environmental Chemistry (4).S.
GEN ED: Capstone Experience
A capstone course for students pursuing a concentration in Environmental Chemistry, this course will focus **on** the wide diversity of subject matter required by this major. The course will involve discussions and applications of air, water and soil chemistry while giving the student an appreciation of the scientific, legal, political and economic issues inherent in Environmental Chemistry. Lecture three hours, laboratory three hours. Prerequisites: CHE 3301, CHE 3303, CHE 3560, CHE 3561, STT 3850.

POS affected: 214G, 121A
- CAS_CHE_2013_07 Change the prerequisite statement for CHE 3560. Instrumental Methods of Analysis to read as follows:
“Prerequisite: CHE 3301, CHE 3303. Corequisite or prerequisite: CHE 3561.”

POS affected: 214B, 214G, 214H, 214I, 216A, 121A, 214
- CAS_CHE_2013_08 Change the course description, prerequisite statement, and semester offering for CHE 3404. Inorganic Chemistry to read as follows:
CHE 3404. Inorganic Chemistry (3).F.
The fundamentals of atomic theory and valence bond, ligand field and molecular orbital theories for interpretation of chemical bonding are considered in detail. Applications of these theories to the magnetic and spectral properties, structure, stability, and reaction mechanisms of inorganic compounds are examined, with emphasis on the transition metals. Symmetry and group theory are used to describe relevant physical and spectral information about molecules, orbital symmetries, allowed transitions between energy levels, and bond orders. The role of metal atoms in organometallic and bioinorganic molecular systems is considered. Lecture three hours. Prerequisites: CHE 2101/2102 or CHE 2202/2204; CHE 2210/2211.

POS affected: 214B, 214D, 214E, 214F, 214G, 214H, 214I, 214J, 216A,

CAS_CHE_2013_09 Change the course description and semester offering for CHE 3405. Inorganic Chemistry Laboratory to read as follows:
CHE 3405. Inorganic Chemistry Laboratory (1).F.
Experimental investigations which supplement the study of inorganic chemistry. Students will use a variety of methods to synthesize inorganic compounds and analyze them using techniques including magnetic susceptibility, multinuclear NMR, UV-Vis spectroscopy, infrared spectroscopy, and electrical conductance. Laboratory three hours. Corequisite or prerequisite: CHE 3404.

CAS_CHE_2013_10 Revise the program of study for the Bachelor of Arts in Chemistry (216A/40.0501). The revised program of study is at the end of the minutes.

Revise the programs of study for the Bachelor of Science in Chemistry (214B, 214D, 214E, 214F, 214G, 214H, 214I, 214J/40.0501). The revised programs of study are at the end of the minutes.

CAS_CHE_2013_11 Revise the program of study for the minor in Chemistry (214/40.0501). The revised program of study is at the end of the minutes.

VOTE 9 – To approve the proposals from CHE - PASSED

The proposals from the Department of **Computer Science** were approved as follows: (EFFECTIVE: FALL 2015)

CAS_CS_2013_04 Change the course description, credit hours, and semester offering for CS 5100. Seminar in Computer Science to read as follows:
CS 5100. Seminar in Computer Science (3).S.
Discussion and presentation of current topics in computer science. Each student will make oral and written reports on the results of research conducted on an instructor approved topic. Professional development aspects are also covered, including resume writing and interviewing skills. Prerequisite: graduate status in computer science.

CAS_CS_2013_05 Course Addition:
CS 5900. Internship (1-3).On Demand.
Independent, supervised work in computing for an approved agency, business, or organization. Prerequisite: prior approval of the departmental internship coordinator. Graded on an S/U basis.

CAS_CS_2013_10 Course Addition:
CS 5998. Thesis Preparation (3).F;S.
The student develops the thesis proposal, carries out research for the thesis topic, and meets regularly with the thesis advisor to develop the thesis. First half of a two-semester thesis requirement; the student also must complete CS 5999. CS 5998 may be repeated, but only three semester hours of credit may be applied to a graduate Program of Study. Graded on an S/U basis.

CAS_CS_2013_11 Change the prerequisite statement for CS 5999. Thesis to read as follows:
Prerequisite: CS 5998. Graded on an SP/UP basis until the thesis has been successfully defended and received final approval, at which time all grades will be changed to S.

CAS_CS_2013_12 Revise the program of study for the Master of Science in Computer Science (224A/11.0701). The revised program of study is at the end of the minutes.

VOTE 10 – To approve the proposals from CS - PASSED

The proposals from the Department of **English** were approved as follows: (EFFECTIVE: FALL 2015)

CAS_ENG_2013_30 Course Addition:
ENG 4825. The Age of Chaucer (3).F.Even-numbered years.
An in depth study of the literature of the High Middle Ages in England, focusing on the writings of Chaucer and his contemporaries, and including religious and secular lyrics, mystical writing, courtly romance, religious drama, chronicle, and writing by and about women.

CAS_ENG_2013_31 Course Addition:
ENG 4826. Capstone in the Age of Chaucer (3).F.Even-numbered years.
GEN ED: Capstone Experience
A senior capstone experience in the presentation and discussion of current topics in literary study, focused on the writings of Chaucer and his contemporaries and culminating in an independent research project. Fulfills the capstone requirement for the Bachelor of Arts degree in English. Prerequisites: ENG 3000, senior standing, and permission of the instructor.

CAS_ENG_2013_32 Change the course title and description for ENG 4821. Capstone in Medieval British Literature to read as follows:
ENG 4821. Capstone in Medieval British Literature (3).F.
GEN ED: Capstone Experience
A senior capstone experience in the presentation and discussion of current topics in literary study, focused on Medieval British literature and culminating in an independent research project. Fulfills the capstone requirement for the Bachelor of Arts degree in English. Prerequisites: ENG 3000, senior standing, and permission of the instructor.

CAS_ENG_2013_33 Revise the program of study for the Bachelor of Arts in English with a concentration in Creative Writing (233B/23.0101). The revised program of study is at the end of the minutes.

Revise the program of study for the Bachelor of Arts in English with a concentration in Literary Studies (233E/23.0101). The revised program of study is at the end of the minutes.

Revise the program of study for the Bachelor of Science in English, Secondary Education (234A/13.1305)[T]. The revised program of study is at the end of the minutes.

CAS_ENG_2014_01 Delete the Master of Arts in English, Education (235*/13.1305) with concentrations in Secondary School Teaching (235S)[TI]. This was already approved by UNC-General Administration in April 2013. This is to remove it from the ASU academic program inventory. **(Effective Fall 2014)**

VOTE 11 – To approve the proposals from ENG - PASSED

The proposals from the Department of **Physics and Astronomy** were approved as follows:
(EFFECTIVE: FALL 2015)

CAS_P&A_2013_02 Change the course description, credit hours, and semester offering for PHY 4210. Methods of Experimental Physics to read as follows:
PHY 4210. Methods of Experimental Physics (4).F;S.
GEN ED: Capstone Experience
Measurement theory, analysis, interpretation and evaluation of data experiment design and scientific report writing. A limited number of advanced laboratory experiments will be performed which illustrate important concepts and methods. Literature searches, written reports and some oral reports will be required. Lecture two hours, laboratory three hours. Prerequisite: PHY 2210. (WRITING; SPEAKING)

POS affected: 270B, 270C, 269A

CAS_P&A_2013_03 Revise the program of study for the Bachelor of Arts in Physics (269A/40.0801). The revised program of study is at the end of the minutes.

Revise the program of study for the Bachelor of Science in Physics with a concentration in Applied Physics (270B/40.0801). The revised program of study is at the end of the minutes.

Revise the program of study for the Bachelor of Science in Physics with a concentration in Secondary Education (270C/40.0801). The revised program of study is at the end of the minutes.

VOTE 12 – To approve the proposals from P&A - PASSED

OLD BUSINESS

- Mike Mayfield recommended bringing back the subcommittee for reviewing/updating policy and procedures, removing redundant information, and updating the Academic Governance Manual (formerly called AP&P Manual).
- Susan Davies recommended creating a subcommittee for reviewing the electronic curriculum process in preparation for new Curriculum software.
- Ben Powell asked for volunteers. Edgar Peck volunteered to be the chair of the Committee on Policies and Procedures along with John Beebe, Julie Hayes, Kristin Hyle, Ben Powell, Susan Davies, and Patty Dale. Ben Powell volunteered to be chair of the Committee on Curriculum Management Software along with Mason Calhoun, Patty Dale, Julie Hayes, and Rene Salinas.

OTHER

ADJOURNMENT

VOTE 13 – To approve adjournment - PASSED

ACADEMIC POLICIES AND PROCEDURES COMMITTEE
October 1, 2014
 Unofficial Vote Record

Committee Members	1	2	3	4	5	6	7	8	9	10			
Jon Beebe	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Dinesh Davé	-	-	-	-	-	-	-	-	-	-			
Kim Hall	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Ellie Hoffman	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Joe Klein	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Kathleen Lynch-Davis	Y	Y	Y	Y	A	Y	Y	Y	Y	Y			
Jason Miller	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Edgar Peck	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Janice Pope	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Ben Powell	Y	A	Y	Y	Y	Y	Y	Y	Y	Y			
Rene Salinas	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
John Wiswell	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Mason Calhoun	Y	Y	Y	Y	Y	Y	Y	A	Y	Y			
Abby Hamrick	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Paige Marley	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Carson Rich	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			

The recommendations from the October 1, 2014 Academic Policies and Procedures Committee meeting are approved. **Proposal CAS_ENG_2014_01 to delete the Master of Arts in English, Education (235*/13.1305) will take effect FALL 2014.**

Stan R. Aeschleman

10-27-2014

Stan R. Aeschleman

Date

Interim Provost and Executive Vice Chancellor

To: Dr. Lori Gonzalez, Provost and Executive Vice Chancellor
From: Dr. Andrea C. Wawrzusin, University Registrar
Date: June 27, 2014
Re: Revision to the Academic Standing Policy changes

There were several academic policies changed effective Fall 2014 to be in compliance with UNC Policy Manual 400.1.5 [R], Fostering Undergraduate Student Success. One of the policies updated was the Academic Standing Policy. We were required to add term GPA and ratio of attempted to completed semester hours to our academic standing policy in addition to our cumulative GPA minimum. It was announced at a couple UNC annual meetings this month that the system-wide policy is being changed to no longer require the addition of a term GPA component.

As a result of this change, and in consultation with the implementation group, Mike Mayfield and Susan Davies, I would like to respectfully request a modification to our recently approved changes to the Academic Standing policy that removes the requirement of a 2.0 term GPA.

Academic Standing Policy as recently approved for the Fall 2014 Undergraduate Bulletin:

To continue at Appalachian in good academic standing, or to return to good-standing after being on probation, undergraduate students must maintain, as a minimum, all of the following:

1. a 2.0 term grade point average
2. a 2.0 cumulative grade point average
3. a satisfactory ratio of 67% attempted hours to earned semester hours

Failure to earn a minimum grade point average of 2.0 in either an individual semester or in the cumulative grade point average, or a satisfactory ratio of 67% attempted hours to earned semester hours, will automatically place the student on academic probation. The satisfactory ratio of attempted hours to semester hours is equivalent to the percentage set by Federal Title IV regulations for Satisfactory Academic Progress. Academic Standing is calculated at the end of each semester, including Summer Session. (Note: The cumulative grade point average earned through Appalachian is computed ONLY on the basis of coursework taken at Appalachian; i.e., grades earned on coursework taken through other collegiate institutions are not computed in or allowed to affect the grade point average at Appalachian, and therefore not used to determine academic standing.) This academic standing policy is effective for all new, continuing and returning undergraduate students enrolled Fall 2014 and after.

While on academic probation, however, a student will, within the limits prescribed below, be allowed to continue:

1. An undergraduate, whether admitted as a freshman, a transfer, or a special (non-degree seeking) student, will be allowed to enroll for a maximum of two (2) fall or spring semesters while carrying a cumulative grade point average below 2.0. The two allowed semesters of probation are cumulative and do not necessarily have to be consecutive terms.

2. The Dean of the student's college or school, or the Director of University College Advising, may choose to attach specific requirements while the student is enrolled on academic probation. These requirements may include, but are not limited to, special advising sessions, a limitation on the number of credit hours taken, a requirement that certain courses be repeated, enrollment in developmental courses, etc.

Academic Standing Policy amendment I am requesting for the Fall 2014 Undergraduate Bulletin:

To continue at Appalachian in good academic standing, or to return to good-standing after being on probation, undergraduate students must maintain, as a minimum, each of the following:

- a 2.0 cumulative grade point average
- a satisfactory ratio of 67% attempted hours to earned semester hours

Failure to earn a minimum grade point average of 2.0 in either an individual semester or in the cumulative grade point average, or a satisfactory ratio of 67% attempted hours to earned semester hours, will automatically place the student on academic probation. The satisfactory ratio of attempted hours to semester hours is equivalent to the percentage set by Federal Title IV regulations for Satisfactory Academic Progress. Academic Standing is calculated at the end of each semester, including Summer Session. (Note: The cumulative grade point average earned through Appalachian is computed ONLY on the basis of coursework taken at Appalachian; i.e., grades earned on coursework taken through other collegiate institutions are not computed in or allowed to affect the grade point average at Appalachian, and therefore not used to determine academic standing.) This academic standing policy is effective for all new, continuing and returning undergraduate students enrolled Fall 2014 and after.

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The “Maximum Transfer Hours” Proposal, originally approved by AP&P on January 16, 2012 for implementation in Fall 2013 will be delayed until Fall 2014. This delay was requested by the Office of Transfer Articulation, after receiving input from representatives from University College Advising, General Education, Distance Education, Registrar’s Office, Financial Aid, WCOB, and Arts & Sciences. The Provost supported and approved the delay based upon recently identified implementation complications that would adversely affect students. Implementation conversations will continue with the aforementioned offices/units, and other groups. This policy, in short, capped the number of transferable credit hours at 72 semester hours from 2-year institutions and 90 semester hours total (2 and 4 year institutions).

Additionally the following steps will be taken:

- The policy will be deleted from the draft version of the 2013-2014 Undergraduate Bulletin by the Registrar’s Office.
- The policy statement will be deleted from the OTA web site.

As the Advising Planner distributed to students at orientation is a printed piece, there is no way to remove the information; but, academic advisors involved with orientation will be notified of the delay. The UC advisors have not been talking with students about the policy; so, we see the current text in the Advising Planner as having a minimal impact.

Thank you, again, for your understanding and support of this situation,

Susan Davies

Last modified: Thursday, September 19, 2013, 1:32 PM

MEMO TO: A. P. & P. Committee
MEMO FM: David A. Wiley, Associate Dean, RCOE
MEMO RE: RCOE approval of one new Second Academic Concentration (SACs)
DATE: 15 September 2014

In many states, it has been common to have had a requirement for a “Second Academic Concentration” (SAC) in teacher preparation programs. The notion of requiring a SAC arose in an era of public perception that a major in a professional education program alone does not represent the kind of academic rigor to which teacher candidates should be exposed. Many programs of teacher preparation within and outside of the Reich College of Education still require the SAC as a time-tested and honored component that adds rigor to teacher education programs. The programs requiring a SAC include elementary education (K-6), business education (6-12), health education (9-12), middle grades education (6-9), physical education teacher education (PETE, K-12), and technology education (6-12). The Appalachian State University Undergraduate Bulletin, 2014-2015, mentions the SAC on page 39 as one of eight threats to degree completion (warning against additional elected SACs); page 116 as an exclusion to the service learning program; page 276 in RCOE BS Degree Requirements (#11), and in several places in the Curriculum Instruction Department (beginning on page 281), home of the majority of the programs mentioned above. There is, however, no list of specific SAC areas, although the Bulletin cautions students to consult with advisors before selecting an appropriate SAC.

The easiest way to locate a list of SACs is to go to <http://rcoe.appstate.edu/academics/second-academic-concentrations> to find 89 SACs. The Teacher Education program does not have students in all of the SACs, but responds to the history of student enrollment and to the pressure of the market. Students who are studying in the technology education program will, as an example, very likely be advised to complete the Sustainable Design and Technology SAC, and the Social Studies Elementary Education SAC fits well into the program of study for elementary educators. Yet school districts have needs that seem to arise from time to time. To that end, several SACs were edited over this past summer with new course numbers and/or adjustments to content to more effectively address the subject area. SACs also need to respond quickly to the needs of the school and in order to allow the academic departments to adjust their SACs for enrollment generation. This past summer saw several adjustments in the list. At the web site given above, the edited SACs are indicated with 2014-15 dates. Additionally, one new SAC is listed as “Language, Literacy, and the English Learner.” This interdisciplinary SAC is clearly a response from the need that the schools are experiencing as their demographics continue to change.

Should you have any questions regarding the SAC list or the new “Language, Literacy, and the English Learner” SAC, please do not hesitate to ask.

cc. Dr. Robin Groce, Dean, RCOE

BACHELOR OF SCIENCE (BS) IN CHILD DEVELOPMENT: BIRTH THROUGH KINDERGARTEN

Major Code: 510x (Teaching)

2014-2015

Department of Family and Consumer Sciences
Reich College of Education

Dr. Patricia Hearnon , Coordinator
hearnonpf@appstate.edu

I. GENERAL EDUCATION 44

II. PROFESSIONAL EDUCATION..... 24

A minimum grade of "C" (2.0) is required in each course.

To be admitted to teacher education (TE), students must take and satisfy testing requirements for all areas of Praxis I (Reading, Writing & Mathematics); SAT or ACT scores may be used in lieu of Praxis I provided required minimum scores are met. Praxis II Specialty Area Exam is required prior to or during Student Teaching. For teacher education admission criteria, testing requirements and additional information, please refer to the Undergraduate Teacher Education Handbook listed under Quick Links at www.ced.appstate.edu.

- C I 2300 ____ (2) Teaching & Learning in the Digital Age.** Required prior to admission to Teacher Education.
- FDN 2400 ____ (2) Critical Perspectives on Teaching & Learning.** Required prior to admission to Teacher Education. Prerequisite or Co-requisite: CI 2300.
- PSY 3010 ____ (3) Psychology Applied to Teaching.** May be taken prior to or after admission to Teacher Education. Prerequisite or Co-requisite: C I 2300.
- SPE 3300 ____ (3) Creating Inclusive Learning Communities.** Admission to Teacher Education required. Prerequisites: CI 2300, FDN 2400, PSY 3010.
- C I 3400 ____ (2) Policies & Practices in Educational Assessment.** Admission to Teacher Education required. Prerequisites: CI 2300, FDN 2400, PSY 3010.
- C I 4900 ____ (12) Student Teaching (S/U).** (CAP) All professional education & major courses must be completed with grades of \geq C (2.0) prior to CI 4900.

III. MAJOR REQUIREMENTS 44

A minimum grade of "C" (2.0) is required in each major course except CI/FCS/SPE 3104 and 3105. 18 sh must be completed at Appalachian

- FCS 2101 ____ (3) Child Dev: Birth - 2 Years**
- FCS 2102 ____ (3) Child Study & Guidance** (prerequisite: FCS 2104 or instructor permission)
- FCS 2104 ____ (3) Child Dev: 3-K Years**
- NUT 2201 ____ (2) Foods & Nutrition for Children**
- FCS 3107 ____ (3) Variations in Development Birth - Kindergarten** (prerequisites: FCS 2101, FCS 2104)
- # FCS/CI/SPE 4553 ____ (3) Issues in Transdisciplinary Service Delivery**
- # FCS/CI/SPE 4556 ____ (3) Infant/Toddler Curriculum** (prerequisite FCS 2101 SPE 3274 or instructor permission)
- # FCS/CI/SPE 4602 ____ (3) Preschool Curriculum & Instruction** (prerequisite: SPE 3274 or instructor permission)
- # FCS/CI/SPE 4680 ____ (3) Kindergarten Curriculum** (prerequisite: admission to teacher education)
- C I 4200 ____ (3) Families in Educational Process for Children Birth-Kindergarten**
- SPE 3274 ____ (3) Developmental/Educational Assessment: Birth-5** (prerequisite: FCS 2101 and 2104 or instructor permission)
- FCS/CI/SPE 3104 ____ (3) Practicum I** (prerequisite: Instructor permission)
- # FCS/CI/SPE 3105 ____ (3) Practicum II (WID)** (prerequisite: FCS/CI/SPE 3104 or instructor permission and ENG 2001 or its equivalent)
- RE 3902 ____ (3) Emergent Literacy**
- PSY 1200 ____ (3) Psychology: Hist, Soc, & Sci Fdns** (Gen Ed: H&S: Individual & Society; Mind)

Courses are restricted to students who have been admitted to Teacher Education.

IV. ELECTIVES (to total a minimum of 122 sh) 10-13

2 SH of free elective hours outside the major discipline are required.

V. TOTAL HOURS IN PROGRAM 122-125

Note: PSY 1200 taken for the major may count toward General Education.

- up to 3

Minimum Hours Required in Program

122

A CUMULATIVE GPA OF 2.50 IS REQUIRED FOR GRADUATION & TEACHER LICENSURE.

PROPOSED 2015-2016

Bachelor of Arts (BA)
Degree Code 216A

Program of Study for Chemistry Majors

- I. GENERAL EDUCATION CURRICULUM..... 44**
CHE 1101/1110 and 1102/1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills the Quantitative Literacy.
- II. LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher) 6**
_____ 1040 ____ and 1050 ____ or 1060 ____; or higher level courses _____
**NOTE: Language 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses.
FL 1050 or 1060 may be used in General Education Perspectives depending upon choices.*
- III. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above)..... 52-54**
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. No more than 46 semester hours of Chemistry courses may be counted toward the BA Degree.
- A. Chemistry (40 semester hours)**
- | | | |
|----------|-----------|--|
| CHE 1101 | _____ (3) | Introductory Chemistry I (Co: CHE 1110) |
| CHE 1110 | _____ (1) | Introductory Chemistry I Lab (Co: CHE 1101) |
| CHE 1102 | _____ (3) | Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120) |
| CHE 1120 | _____ (1) | Introductory Chemistry II Lab (Co: CHE 1102) |
| CHE 2201 | _____ (3) | Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203) |
| CHE 2203 | _____ (1) | Organic Chemistry I Lab (Co: CHE 2201) |
| CHE 2202 | _____ (3) | Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204) |
| CHE 2204 | _____ (1) | Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202) |
| CHE 2210 | _____ (3) | Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211) |
| CHE 2211 | _____ (1) | Quantitative Analysis Lab (Co: CHE 2210) |
| CHE 3000 | _____ (1) | Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210) |
| CHE 3301 | _____ (3) | Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151) |
| CHE 3303 | _____ (1) | Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301) |
| CHE 3302 | _____ (3) | Physical Chemistry II (Pre: CHE 3301) |
| CHE 3304 | _____ (1) | Physical Chemistry II Laboratory (Pre: CHE 3303; Pre/Co: CHE 3302) |
| CHE 3404 | _____ (3) | Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211) |
| CHE 3405 | _____ (1) | Inorganic Chemistry Laboratory (Co: CHE 3404) |
| CHE 4000 | _____ (1) | Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303) |
| CHE 4400 | _____ (1) | Senior Research (Pre: CHE 4000) |
- Plus an additional 5 semester hours of chemistry courses at or above the 3000 level (CHE 3520 & 4610 excluded)
-
- CHE 3560/3561 Instrumental Methods of Analysis & Lab and CHE 4580 Biochemistry I are strongly recommended. If CHE 3560 & 4580 are chosen, this degree is approved by the American Chemical Society's Committee on Professional Training.*
- B. Physics (10 semester hours)**
- | | | |
|----------|-----------|--|
| PHY 1150 | _____ (5) | Analytical Physics I (Pre Co: MAT 1110) |
| PHY 1151 | _____ (5) | Analytical Physics II (Pre Co: MAT 1120) |
- C. Mathematics (8 semester hours)**
- | | | |
|----------|-----------|---|
| MAT 1110 | _____ (4) | Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-) |
| MAT 1120 | _____ (4) | Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-) |
- D. Other Science (6-8 semester hours)** An additional 6-8 semester hours selected from astronomy, biology, geology, or physics.
GLY 2301 may be used in General Education Perspectives.
_____ (Physics courses at the 1000 level and PHY 3350 are not accepted)
- IV. MINOR REQUIRED..... 12-16**
Minimum of 9 semester hours of courses taken to fulfill minor requirements must be courses offered by Appalachian.
- V. ELECTIVES (taken to total 122 hours for the degree)..... 2-8**
2 semester hours of free electives must be outside the major discipline. 122
Total major (including language & minor) = 82-88 hrs; Gen Ed courses may count in major (depends on choices) – up to 18; net major 64-70 hours.

Proposed 2015-2016

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214B

Program of Study for Chemistry Majors
CERTIFIED CHEMIST

I. GENERAL EDUCATION CURRICULUM 44

CHE 1101, 1110, 1102, and 1120 will fulfill the Science Inquiry Perspective. MAT 1110 will fulfill Quantitative Literacy.

II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 54-56

2.0 major GPA is required for graduation. Major GPA calculation includes all courses in the major department, plus any other courses under II.

A. Chemistry (42 semester hours)

CHE 1101	_____ (3)	Introductory Chemistry I (Co: CHE 1110)
CHE 1110	_____ (1)	Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102	_____ (3)	Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120	_____ (1)	Introductory Chemistry II Lab (Co: CHE 1102)
CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2202)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre/Co: CHE 3301; Pre: ENG 2001)
CHE 3302	_____ (3)	Physical Chemistry II (Pre: CHE 3301)
CHE 3304	_____ (1)	Physical Chemistry II Laboratory (Pre: CHE 3303; Pre/Co: CHE 3302)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 3405	_____ (1)	Inorganic Chemistry Lab (Co: CHE 3404)
CHE 3560	_____ (3)	Instrumental Methods of Analysis (Pre: CHE 3301/3303; CO: 3561)
CHE 3561	_____ (1)	Instrumental Methods of Analysis Lab (Co: CHE 3560)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)
CHE 4580	_____ (3)	Biochemistry I (Pre: CHE 2101 or 2202)

Choose one of the following:

CHE 4400	_____ (1)	Senior Research (Pre: CHE 4000; may be completed abroad with permission)
OR		
CHE 4510	_____ (1)	Chemistry Honors Thesis (Pre/Co: CHE 4000 honors; Pre: 3 sh CHE; 3.45+ cum & CHE GPA)
2 sh of CHE 4510 required for departmental honors		

B. Physics (10 semester hours)

PHY 1150	_____ (5)	Analytical Physics I (Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Co: MAT 1120)

C. Mathematics (8 semester hours)

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade of C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade of C-)

D. Other Science (6-8 semester hours) 6-8 semester hours selected from: astronomy, biology, geology, or physics. GLY 2301 may be used in General Education Perspectives.

(Physics courses at the 1000 level, and PHY 3350, are not accepted)

E. A course in computer programming is also recommended _____

(Suggested course: CS 1445 Introduction to Programming with Interdisciplinary Applications {Pre: MAT 1020 or 1025})

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree) 22-24

2 semester hours of free electives must be outside the major discipline.

122

Total major = 66-68 hrs; Gen Ed courses may count in major (depends on choices) – up to 15; net major 51-53 hours.

PROPOSED 2015-2016

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214D

Program of Study for Chemistry Majors
MARKETING AND BUSINESS

I. GENERAL EDUCATION CURRICULUM.....44

CHE 1101, 1110, 1102, and 1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 67-69

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry (32 semester hours)

CHE 1101	_____ (3)	Introductory Chemistry I (Co: CHE 1110)
CHE 1110	_____ (1)	Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102	_____ (3)	Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120	_____ (1)	Introductory Chemistry II Lab (Co: CHE 1102)
CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Co: CHE 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)

Additional 3 semester hours of chemistry courses at or above 3000 level (excluding 3520 & 4610) _____

B. Physics (10 semester hours)

PHY 1150	_____ (5)	Analytical Physics I (Pre Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Pre Co: MAT 1120)

C. Mathematics (8 semester hours)

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

D. Other Science (6-8 semester hours) An additional 6-8 semester hours selected from astronomy, biology, geology, or physics. *GLY 2301 may be used in General Education Perspectives.*

_____ (Physics courses at the 1000 level and PHY 3350 are not accepted)

E. Marketing & Business Concentration (21 semester hours) *ECO 2030 may be used in General Education Perspectives.*

ACC 2100	_____ (3)	Principles of Accounting I (Pre: 24 hrs college credit)
ECO 2030	_____ (3)	Principles of Microeconomics
MKT 3050	_____ (3)	Principles of Marketing (Pre: ECO 2030)
MKT 3220	_____ (3)	Sales Management (Pre: MKT 3050 w/minimum grade of "C")

Plus choose 9 hours of electives:

MKT 3052	_____ (3)	Professional Selling (Pre: MKT 3050 w/min grade "C")
MKT 3210	_____ (3)	Retail Management (Pre: MKT 3050 w/min grade "C")
MKT 3230	_____ (3)	Business-to-Business Marketing (Pre: MKT 3050 w/minimum grade of "C")
MKT 3240	_____ (3)	Integrated Marketing Communications (Pre: MKT 3050 w/min grade "C")
MKT 3260	_____ (3)	Managing Distribution Channels (Pre: MKT 3050 w/min grade "C")
MKT 3530/4530	_____ (3)	Selected Topics in Marketing
MKT 3900	_____ (6)	Internship (Pre: MKT 3050 w/minimum grade of "C")
MKT 4550	_____ (3)	International Marketing (Pre: MKT 3050 w/min grade "C")
MKT 4610	_____ (3)	Consumer Behavior (Pre: MKT 3050 w/min grade "C")
MKT 4620	_____ (3)	Marketing Research (Pre: MKT 3050 w/ minimum grade of "C"; ECO 2200)

Completing the required courses listed above with a minimum overall GPA of 2.0 qualifies the student to minor in Marketing.

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree) 9-11
2 semester hours of free electives must be outside the major discipline. 122

Total major = 79-81 hrs; Gen Ed courses may count in major (depends on choices) – up to 15; net major 64-66 hours.

PROPOSED 2015-2016

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214E

Program of Study for Chemistry Majors
PRE-PROFESSIONAL AND PARAMEDICAL

I. GENERAL EDUCATION CURRICULUM 44

CHE 1101, 1110, 1102, and 1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 68-70

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry (32 semester hours)

CHE 1101	_____ (3)	Introductory Chemistry I (Co: CHE 1110)
CHE 1110	_____ (1)	Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102	_____ (3)	Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120	_____ (1)	Introductory Chemistry II Lab (Co: CHE 1102)
CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: CHE 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)
CHE 4580	_____ (3)	Biochemistry I (Pre: CHE 2101 or 2202)

B. Physics (10 semester hours)

PHY 1150	_____ (5)	Analytical Physics I (Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Co: MAT 1120)

C. Mathematics (8 semester hours)

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

D. Other Science (6-8 semester hours) selected from: astronomy, biology, geology, or physics. *GLY 2301 may be used in General Education Perspectives.* _____ (Physics courses at the 1000 level and PHY 3350 are not accepted)

E. Preprofessional & Paramedical Concentration (24 semester hours) (Substitutions permitted with departmental approval)

(Pre: BIO 1801 for all BIO courses ≥ 2000)

BIO 1801	_____ (4)	Biological Concepts I (Co: CHE 1101)
BIO 2400	_____ (3)	Genetics (Pre: CHE 1102; MAT 1025) OR BIO 2700 _____ (3) Human Genetics (Pre: CHE 1102; MAT 1025)
BIO 2410	_____ (1)	Genetics Laboratory (Pre or Co: BIO 2400 or 2700)
BIO 3301	_____ (4)	Human Systems Physiology (Pre: CHE 2201 or 2101)
BIO 3308	_____ (4)	Microbiology (Pre: CHE 1102/1120)

Choose 8 sh from:

BIO 2000	_____ (4)	Introduction to Botany
BIO 2600	_____ (3)	Cell Biology (Pre: CHE 1102)
BIO 2610	_____ (1)	Cell Biology Laboratory (Pre: MAT 1025; Pre/Co: BIO 2600)
BIO 3314	_____ (4)	Comparative Vertebrate Zoology [WID – BIO] (Pre: ENG 2001)
BIO 3800	_____ (4)	Molecular Biology [WID – BIO] (Pre: CHE 2201 or 2101)
BIO 4568	_____ (4)	Immunology (Pre/Co: BIO 2400)

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree)..... 8-10

2 semester hours of free electives must be outside the major discipline.

122

Total major = 80-82 hrs; Gen Ed courses may count in major (depends on choices) – up to 15; net major 65-67 hours.

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214F

PROPOSED 2015-2016

Program of Study for Chemistry Majors
INDIVIDUALLY DESIGNED

Student Name: _____

Date _____

I. GENERAL EDUCATION CURRICULUM 44

CHE 1101, 1110, 1102, and 1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 62-64

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry (32 semester hours)

CHE 1101 _____ (3) Introductory Chemistry I (Co: CHE 1110)
CHE 1110 _____ (1) Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102 _____ (3) Introductory Chemistry II (Pre: CHE 1101/1110; Co: 1120)
CHE 1120 _____ (1) Introductory Chemistry II Lab (Co: CHE 1102)

~~Choose one 4 hour organic chemistry sequence:~~

~~CHE 2101 _____ (3) Fundamentals of Organic Chemistry (Pre: CHE 1102/1120; Co: CHE 2102)~~

~~CHE 2102 _____ (1) Fundamentals of Organic Chemistry Lab (Co: CHE 2101)~~

OR

CHE 2201 _____ (3) Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203 _____ (1) Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: CHE 2201)
CHE 2202 _____ (3) Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204 _____ (1) Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2202)
CHE 2210 _____ (3) Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211 _____ (1) Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000 _____ (1) Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
CHE 3301 _____ (3) Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303 _____ (1) Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404 _____ (3) Inorganic Chemistry (Pre: ~~CHE 3301~~ CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 4000 _____ (1) Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)

Plus an additional ~~7~~ 3 semester hours of chemistry courses:

B. Physics (10 semester hours)

PHY 1150 _____ (5) Analytical Physics I (Pre-Co: MAT 1110)
PHY 1151 _____ (5) Analytical Physics II (Pre-Co: MAT 1120)

C. Mathematics (8 semester hours)

MAT 1110 _____ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade of C-)
MAT 1120 _____ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade of C-)

D. Other Science (6-8 semester hours) An additional 6-8 semester hours selected from astronomy, biology, geology, or physics.

GLY 2301 may be used in General Education Perspectives.

_____ (Physics courses at the 1000 level and PHY 3350 are not accepted)

E. Individually Designed Concentration (18 semester hours)

A concentration to prepare the chemistry major to pursue other career opportunities may be developed in consultation with the chairperson of the Department of Chemistry and must be individually approved.

Course	Hours	Course	Hours	Course	Hours
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

III. MINOR (optional)

Student Signature: _____ Advisor Signature: _____ Chairperson Signature: _____ Date: _____ Date Sent to Dean's Office: _____

IV. ELECTIVES (taken to total 122 hours for the degree)..... 14-16

2 semester hours of free electives must be outside the major discipline.

122

Total major = 74-76 hrs; Gen Ed courses may count in major (depends on choices) – up to 15; net major 59-61 hours.

PROPOSED 2015-2016

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214G

Program of Study for Chemistry Majors
ENVIRONMENTAL

- I. GENERAL EDUCATION CURRICULUM 44**
CHE 1101/1110 and 1102/1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills the Quantitative Literacy requirement.
- II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 74**
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.
- A. Chemistry (32 semester hours)**
- | | | |
|---------------|-----------|--|
| CHE 1101/1110 | _____ (4) | Introductory Chemistry I & Lab |
| CHE 1102/1120 | _____ (4) | Introductory Chemistry II & Lab (Pre: CHE 1101/1110) |
| CHE 2201 | _____ (3) | Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203) |
| CHE 2203 | _____ (1) | Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: 2201) |
| CHE 2202 | _____ (3) | Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: 2204) |
| CHE 2204 | _____ (1) | Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2202) |
| CHE 2210 | _____ (3) | Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211) |
| CHE 2211 | _____ (1) | Quantitative Analysis Lab (Co: CHE 2210) |
| CHE 3000 | _____ (1) | Introduction to Chemical Research (Pre: CHE 2101 or 2201; 2210) |
| CHE 3301 | _____ (3) | Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151) |
| CHE 3303 | _____ (1) | Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301) |
| CHE 3404 | _____ (3) | Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211) |
| CHE 3560 | _____ (3) | Instrumental Methods of Analysis (Pre: CHE 3301/3303; Co: 3561) |
| CHE 3561 | _____ (1) | Instrumental Methods of Analysis Lab (Co: 3560) |
- B. Physics (13 semester hours)**
- | | | |
|----------|-----------|---|
| PHY 1150 | _____ (5) | Analytical Physics I (Co: MAT 1110) |
| PHY 1151 | _____ (5) | Analytical Physics II (Co: MAT 1120) |
| PHY 3140 | _____ (3) | Environmental Physics (Pre: PHY 1104 or 1151) |
- C. Mathematics (8 semester hours)**
- | | | |
|----------|-----------|---|
| MAT 1110 | _____ (4) | Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-) |
| MAT 1120 | _____ (4) | Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-) |
- D. Other Sciences (8 semester hours)**
- | | | |
|----------|-----------|--------------------------------------|
| BIO 1801 | _____ (4) | Biological Concepts I (Co: CHE 1101) |
| GLY 1101 | _____ (4) | Introduction to Physical Geology |
- E. Environmental Concentration (25 semester hours) ECO 2620 or GHY 1010 may be used in General Education Perspectives.**
- 1. Science and Mathematics (16 semester hours)**
- | | | |
|----------|-----------|--|
| BIO 3302 | _____ (4) | Ecology (Pre: BIO 1801) |
| CHE 4620 | _____ (4) | Environmental Chemistry [CAP] (Pre: CHE 3301/3303, 3560, 3561; STT 2810 STT 3850) |
| GLY 1103 | _____ (4) | Environmental Change, Hazards, & Resources |
| STT 3850 | _____ (4) | Statistical Data Analysis (Pre: MAT 1110) |
- 2. Social Science (9 semester hours)**
- | | | |
|----------|-----------|------------------------------------|
| ECO 2620 | _____ (3) | Environmental & Resource Economics |
| GHY 1010 | _____ (3) | Introduction to Physical Geography |
| P S 2130 | _____ (3) | State and Local Government |
- III. MINOR (optional)**
- IV. ELECTIVES (taken to total 122 hours for the degree)..... 4**
2 semester hours of free electives must be outside the major discipline. 122
 Total major = 86 hrs; Gen Ed courses may count in major (depends on choices) – up to 15; net major 71 hours.

Recommended Electives

CHE 3302	_____ (3)	Physical Chemistry II (Pre: CHE 3301)	GHY 3320	_____ (3)	Environmental Issues in Appalachia
CHE 3304	_____ (1)	Physical Chemistry II Lab (Pre: CHE 3303; Pre/Co: CHE 3302)	GHY 4820	_____ (3)	Geographical Hydrology (Pre: GHY 1010, 3100, 3110)
C S 1440	_____ (3)	Computer Science I (Pre: MAT 1020/1025 w/grade "C-")	GLY 4630	_____ (3)	Hydrogeology (Pre: Jr. standing; 6 sh GLY ≥ 1000)
GHY 3100	_____ (3)	Weather and Climate (Pre: GHY 1010)	PHL 1100	_____ (3)	Logic I
GHY 3110	_____ (3)	Vegetation, Soils, & Landforms (Pre: GHY 1010)	P S 3280	_____ (3)	Public Policy Analysis
GHY 3310	_____ (3)	Environmental Remote Sensing			

PROPOSED 2015-2016

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214H

Program of Study for Chemistry Majors
FORENSIC SCIENCE

I. GENERAL EDUCATION CURRICULUM..... 44
CHE 1101/1110 and 1102/1120 fulfill the Science Inquiry Perspective. MAT 1110 fulfills the Quantitative Literacy.

II. MAJOR REQUIREMENTS (not including 12 semester hours already counted in I above) 69
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry Course Requirements: 37 semester hours (8 hours already counted in Core Curriculum Science Req.)

CHE 1101	_____ (3)	Introductory Chemistry I (Co: CHE 1110)
CHE 1110	_____ (1)	Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102	_____ (3)	Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120	_____ (1)	Introductory Chemistry II Lab (Co: CHE 1102)
CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: CHE 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 3560	_____ (3)	Instrumental Methods of Analysis (Pre: CHE 3301/3303; Co: 3561)
CHE 3561	_____ (1)	Instrumental Methods of Analysis Lab (Co: CHE 3560)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)
CHE 4580	_____ (3)	Biochemistry I (Pre: CHE 2101 or 2202)
CHE 4581	_____ (1)	Biochemistry I Lab (Pre: CHE 2102 or 2204; Co: 4580; Sr. standing)

B. Physics (10 semester hours)

PHY 1150	_____ (5)	Analytical Physics I (Pre Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Pre Co: MAT 1120)

C. Mathematics (11 semester hours)

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)
STT 2810	_____ (3)	Introduction to Statistics (Pre: MAT 1010)

D. Other Science (8 semester hours)

BIO 1801	_____ (4)	Biological Concepts I (Co: CHE 1101)
BIO 3800	_____ (4)	Molecular Biology [WID-BIO] (Pre: CHE 2201 or 2101; BIO 1801)

E. Criminal Justice Courses (15 semester hours)

C J 1100	_____ (3)	Introduction to Criminal Justice
C J 3400	_____ (3)	Theories of Crime and Justice
C J 3405	_____ (3)	Forensic Investigation
C J 3551	_____ (3)	Criminal Law
C J 3552	_____ (3)	Criminal Procedure

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree) 9
2 semester hours of free electives must be outside the major discipline. 122

Total major = 81hrs; Gen Ed courses may count in major (depends on choices) – up to 12; net major 69 hours.

Electives recommended by department:

CHE 4590 Spectral Interpretations (2 s.h), BIO 2400/2410 Genetics and Lab (4 s.h.), STT 3820 Statistical Methods I (3 s.h.)

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214I

Program of Study for Chemistry Majors
FERMENTATION SCIENCES

I. GENERAL EDUCATION CURRICULUM 44
CHE 1101, 1110, 1102, and 1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) 68
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry (37 semester hours)

- CHE 1101 _____ (3) Introductory Chemistry I (Co: CHE 1110)
- CHE 1110 _____ (1) Introductory Chemistry I Lab (Co: CHE 1101)
- CHE 1102 _____ (3) Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
- CHE 1120 _____ (1) Introductory Chemistry II Lab (Co: CHE 1102)
- CHE 2201 _____ (3) Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
- CHE 2203 _____ (1) Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: CHE 2201)
- CHE 2202 _____ (3) Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
- CHE 2204 _____ (1) Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202)
- CHE 2210 _____ (3) Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
- CHE 2211 _____ (1) Quantitative Analysis Lab (Co: CHE 2210)
- CHE 3000 _____ (1) Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
- CHE 3301 _____ (3) Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
- CHE 3303 _____ (1) Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
- CHE 3404 _____ (3) Inorganic Chemistry (Pre: ~~CHE 3301~~ CHE 2101/2102 or 2202/2204; CHE 2210/2211)
- CHE 3560 _____ (3) Instrumental Methods of Analysis (Pre: CHE 3301/3303; Co: CHE 3561)
- CHE 3561 _____ (1) Instrumental Methods of Analysis Lab (Co: CHE 3561)
- CHE 4000 _____ (1) Chemistry Seminar [CAP] (Pre: CHE 3000, 3301/3303)
- CHE 4580 _____ (3) Biochemistry I (Pre: CHE 2101 or 2202)
- CHE 4581 _____ (1) Biochemistry I Lab (Pre: CHE 2102 or 2204; Co: 4580; Sr. standing)

B. Physics (10 semester hours)

- PHY 1150 _____ (5) Analytical Physics I (Co: MAT 1110)
- PHY 1151 _____ (5) Analytical Physics II (Co: MAT 1120)

C. Mathematics (8 semester hours)

- MAT 1110 _____ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
- MAT 1120 _____ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

D. Other Science (7 semester hours)

- BIO 1801 _____ (4) Biological Concepts I (Co: CHE 1101)
- BIO 2600 _____ (3) Cell Biology (Pre: BIO 1801; CHE 1102)

E. Fermentation Sciences Concentration (18 semester hours)

- BIO 3308 _____ (4) Microbiology (Pre: BIO 1801; CHE 1102/1120)
- FER 2000 _____ (1) Social Implications of Fermented Beverages
- FER 3200 _____ (3) Facility Design and Operation
- FER 4300 _____ (3) Sensory Analysis of Wine and Beer (Pre: FER 4100 or CHE/FER 4200; STT 2810)
- NUT 3210 _____ (3) Beverage Management

Choose one of the following:

- FER 4100 _____ (4) Wine Production & Analysis (Pre: CHE 2210 & 2211)
- CHE/FER 4200 _____ (4) Brewing Science & Analysis (Pre: CHE 2210 & 2211)

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree)..... 10

2 semester hours of free electives must be outside the major discipline. 122

Total major = 80 hrs; Gen Ed courses may count in major (depends on choices) – up to 12; net major 68 hours.

Electives recommended by department:

FER 1000 Principles of Fermentation Sciences (3 sh); FER 3000 Viticulture: Vine Physiology & Vineyard Establishment (4 sh); ACC 1050 Survey of Accounting (3 sh); BUS 1050 Introduction to Business (3 sh); MGT 3060 Opportunity and Entrepreneurship (3 sh); MGT 4650 Venture Creation (3 sh) (Pre: "C" in WID; FIN 3680 MGT 3630; MKT 3050); CHE 2526 Chemical Safety (1 sh);

Bachelor of Science (BS)
Degree Code 214*
Concentration Code 214J

Program of Study for Chemistry Majors
CHEMISTRY
SECONDARY EDUCATION LICENSURE

I. CORE CURRICULUM44

CHE 1101/1110 and 1102/1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills the Quantitative Literacy.

II. PROFESSIONAL EDUCATION REQUIREMENTS 24

A minimum grade of C is required in each professional education course. CI 2300 & FDN 2400 are required prior to admission to Teacher Educ.

CI 2300	_____ (2)	Teaching and Learning in the Digital Age (Entry course to teacher education)	
FDN 2400	_____ (2)	Critical Perspectives on Teaching and Learning (Pre or Co: CI 2300) (Entry course to teacher education)	
PSY 3010	_____ (3)	Psychology Applied to Teaching (Pre or Co: CI 2300)	PROFICIENCIES:
SPE 3300*	_____ (3)	Creating Inclusive Learning Communities (Pre: CI 2300, FDN 2400, PSY 3010)	Reading _____
CI 3400*	_____ (2)	Policies and Practice in Educational Assessment (Pre: CI 2300, FDN 2400, PSY 3010)	English _____
CI 4900	_____ (12)	Student Teaching [CAP] (All courses in professional core must be completed with grades of C (2.0) or higher prior to student teaching, along with other courses (including methods and reading) identified within the major.)	Speech _____

*Admission to Teacher Education required.

NOTE: To be admitted to the Teacher Education Program students must take and satisfy testing requirements for Reading, Writing and Math areas of the PRAXIS (PPST or CBT). The PRAXIS II Area Exams are required for student teaching.

III. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above)51

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Chemistry (32 semester hours)

CHE 1101/1110	_____ (4)	Introductory Chemistry I & Lab
CHE 1102/1120	_____ (4)	Introductory Chemistry II & Lab (Pre: CHE 1101/1110; Co: 1120)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301 CHE 2101/2102 or 2202/2204; CHE 2210/2211)
CHE 3521	_____ (1)	Secondary Science Field Experience (Pre: Jr/Sr standing)

Experience as a tutor through the Learning Assistance Program or the Supplemental Instruction Program is strongly recommended.

CHOOSE ONE GROUP OF 11 semester hours:

CHE 2101	_____ (3)	Fundamentals of Organic Chemistry (Pre: CHE 1102/1120; Co: 2102)
CHE 2102	_____ (1)	Fundamentals of Organic Chemistry Lab (Pre: CHE 1102/1120; Co: 2101)

Plus 7 semester hours of chemistry courses (CHE 4580, Biochemistry I is recommended) _____

OR

CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE1102/1120; Co: 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/grade "C-"; Co: CHE 2202)

Plus 3 semester hours of chemistry courses (CHE 4580, Biochemistry I is recommended) _____

B. Physics (10 semester hours)

PHY 1150	_____ (5)	Analytical Physics I (Pre Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Pre Co: MAT 1120)

C. Mathematics (8 semester hours)

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

D. Education (5 semester hours) Minimum "C" grade is required in both these courses.

G S 4403	_____ (3)	Teaching Science in Middle and High Schools [WID] (Pre: ENG 2001)
R E 4630	_____ (2)	Reading in the Content Areas

E. Other Science (8 semester hours)

BIO 1801	_____ (4)	Biological Concepts I (Co: CHE 1101)
GLY 1101	_____ (4)	Introduction to Physical Geology

IV. MINOR (optional)

V. ELECTIVES (taken to total 122 hours for the degree) 3

2 semester hours of free electives must be outside the major discipline.

Total major = 63 hrs; Gen Ed courses may count in major (depends on choices) – up to 12; net major 51 hours.

PROPOSED 2015-2016

Minor Program of Study

Chemistry Minor

Required hours: 20 hours

Minor Code 214

I. Required (8 hours)

CHE 1101 _____ (3) Introductory Chemistry I (Co: CHE 1110) CHE 1110 _____ (1) Intro Chemistry I Lab (Co: CHE 1101)
 CHE 1102 _____ (3) Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120) CHE 1120 _____ (1) Intro Chemistry II Lab (Co: CHE 1102)

II. Electives: Choose 12-14 hours of CHE electives from at least two areas of chemistry. This must include laboratory experiences in at least two different areas.

OPTION I

CHE 2201 _____ (3) Organic Chemistry I (Pre: CHE 1102 & 1120; Co: CHE 2203)
 CHE 2203 _____ (1) Organic Chemistry I Lab (Pre: CHE 1102 & 1120; Co: CHE 2201)
 CHE 2202 _____ (3) Organic Chemistry II (Pre: CHE 2201/ 2203 w/min grade of "C-"; Co: CHE 2204)
 CHE 2204 _____ (1) Organic Chemistry II Lab (Pre: CHE 2201/ 2203 w/min grade of "C-"; Co: CHE 2202)

Choose 4 sh course sequence:

CHE 4580 _____ (3) Biochem I (Pre: CHE 2101 or 2202) **AND** CHE 4581 _____ (1) Biochem I Lab (Pre: CHE 2102 OR 2204; Co: CHE 4580; Sr. standing)

OR

CHE 2210 _____ (2) Quant Anly (Pre: CHE 1102 & 1120; Co: CHE 2211) **AND** CHE 2211 _____ (2) Quant Analysis Lab (Co: CHE 2210)

OR

CHE 4800 _____ (4) Forensic Microscopy (Pre: CHE 2202) includes one lab credit hour

OPTION II

CHE 2210 _____ (3) Quantitative Analysis (Pre: CHE 1102 & 1120; Co: CHE 2211)
 CHE 2211 _____ (1) Quantitative Analysis Laboratory (Co: CHE 2210)
 CHE 3301 _____ (3) Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
 CHE 3303 _____ (1) Physical Chemistry I Lab (Pre/Co: CHE 3301; Pre: ENG 2001)

Choose 4 sh course sequence:

CHE 3302 _____ (3) Physical Chem II (Pre: CHE 3301) **AND** CHE 3304 _____ (1) Physical Chem II Lab (Pre: CHE 3303; Pre/Co: CHE 3302)

OR

CHE 3560 _____ (3) Instrumental Meth (Pre: CHE 3301/3303; Co: CHE 3560) **AND** CHE 3561 _____ (1) Inst'l Meth Lab (Co: CHE 3560)

OR

CHE 4800 _____ (4) Forensic Microscopy (Pre: CHE 2202) includes one lab credit hour

OPTION III

CHE 2101 _____ (3) Fundamentals of Organic Chemistry (Pre: CHE 1102 & 1120; Co: CHE 2102)
 CHE 2102 _____ (1) Fundamentals of Organic Chemistry Lab (Pre: CHE 1102 & 1120; Co: CHE 2101)
 CHE 2210 _____ (3) Quantitative Analysis (Pre: CHE 1102 & 1120; Co: CHE 2211)
 CHE 2211 _____ (1) Quantitative Analysis Laboratory (Co: CHE 2210)
 CHE 4580 _____ (3) Biochemistry I (Pre: CHE 2101 or 2202)
 CHE 4581 _____ (1) Biochemistry I Lab (Pre: CHE 2102 OR 2204; Co: CHE 4580; Sr. standing)

OPTION IV

CHE 2101 _____ (3) Fundamentals of Organic Chemistry (Pre: CHE 1102 & 1120; Co: CHE 2102)
 CHE 2102 _____ (1) Fundamentals of Organic Chemistry Lab (Pre: CHE 1102 & 1120; Co: CHE 2101)
 CHE 2526 _____ (1) Chemical Safety (Pre: CHE 1101 & 1110)
 CHE 4580 _____ (3) Biochemistry I (Pre: CHE 2101 or 2202)
 CHE 4581 _____ (1) Biochemistry I Lab (Pre: CHE 2203; Co: CHE 4580)

Choose one:

CHE 2400 _____ (3) Intro to Forensic Chemistry & Criminalistics (Pre: CHE 1102 & 1120)

OR

CHE 4630 _____ (3) Forensic Toxicology (Pre: CHE 2101 or 2202)

- I. GENERAL EDUCATION CURRICULUM44
ENG 2030 or 2040, may be used in General Education Perspectives (depends on choices).
- II. LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher).....6

_____ 1040 ____ and 1050 ____ or 1060 ____; or higher level courses _____

*NOTE: Language 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses.
LLC 1050 or 1060 may be used in General Education Perspectives depending upon choices

- III. MAJOR REQUIREMENTS39

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. No more than 46 semester hours of courses in English may be counted toward the BA Degree.

36 semester hours above the 2001 level; 24 semester hours must be at the 3000 level or above.

ENG 1000 is a prerequisite for all ENG courses level 2001 and above.

- A. Writing Courses: (9 s.h.) at least three (but no more than five) of following: (+ Course may be repeated for credit when content varies.)

- ENG 3651 ____ (3) Creative Writing: Poetry
- ENG 3652 ____ (3) Creative Writing: Prose (Fiction)
- ENG 3661+ ____ (3) Advanced Poetry (Pre: ENG 3651)
- ENG 3662+ ____ (3) Advanced Fiction (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679, or ENG/COM 3680)
- ENG 3663+ ____ (3) Advanced Creative Non-Fiction (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679, or ENG/COM 3680)
- ENG/THR 3670+ ____ (3) Playwriting
- ENG/THR 3679 ____ (3) Screenwriting
- ENG/COM 3680 ____ (3) Literary Journalism
- ENG 4550+ ____ (3) Senior Seminar in Creative Writing (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679, or ENG/COM 3680)
- ENG 4815+ ____ (3) Rivers Coffey Colloquium in Creative Writing (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679, or ENG/COM 3680; Sr. standing)

- B. Literature Courses (3 s.h.) Choose at least one of the following genre courses:

ENG 3720 ____ (3) Studies in Short Story OR ENG 3740 ____ (3) Studies in Poetry OR ENG 3750 ____ (3) Studies in Drama

- C. Grammar: (3 s.h.) ENG 3300 ____ (3) Applied Grammar

- D. Writing in the Discipline (3 s.h.): ENG 3000 ____ (3) Approaches to Literary Studies [WID] (Pre: ENG 2001)

- E. Senior Capstone (3 s.h.): Choose 3 sh (Must be taken during senior year)

ENG 4550 ____ (3) Senior Seminar in Creative Writing [CAP] (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679 or ENG/COM 3680)
ENG 4815 ____ (3) Rivers Coffey Colloquium [CAP] (Pre: ENG 3651, 3652, ENG/THR 3670, ENG/THR 3679, or ENG/COM 3680; Sr. standing)
3sh from [CAP]: ENG 4510 (Pre: ENG 3000; ENG 4508 & 4509 w/grade of B), 4571, 4581, 4586, 4592, 4711, 4721, 4731, 4761, 4771, 4781, 4791, 4796, 4811, 4821, 4826, 4831, 4841, 4851, 4861, 4871, 4881, 4891, 4896 (All have PRE: ENG 3000, Sr. standing)

- F. Courses beyond the 21 semester hours Creative Writing Concentration (18 s.h.)

Honors courses are indicated by section number - 410 on the *Schedule of Courses*.

1. British Literature – Choose one (3 s.h.):

ENG 2010 ____ (3) British Literature to 1789
ENG 2020 ____ (3) British Literature since 1789

3. American Literature – Choose one (3 s.h.)

ENG 2310 ____ (3) American Literature to 1865
ENG 2320 ____ (3) American Literature since 1865

2. World Literature – Choose one (3 s.h.)

ENG 2030 ____ (3) World Literature to 1650
ENG 2040 ____ (3) World Literature since 1650

4. Two 4000 level literature courses – (6 s.h.)

5. One 4000 level course – (3 s.h.) _____

If ENG 4550 taken to meet III. A. above (not just Capstone), then one 3000 level or higher course can be taken to meet this requirement

- IV. MINOR REQUIRED..... 12-21

Minimum of 9 semester hours of courses taken to fulfill minor requirements must be courses offered by Appalachian.

- V. ELECTIVES (taken to total 122 hours for the degree).....12-21

2 semester hours of free electives must be outside the major discipline.

122

Total major (including language & minor) = 57-66 hrs; Gen Ed courses may count in major (depends on choices) – up to 6; net major 51-60 hours.

Bachelor of Arts (BA)
Degree Code 233*
Major Code 233E

2015-2016
PROPOSED

Program of Study for English Majors
LITERARY STUDIES CONCENTRATION

- I. GENERAL EDUCATION CURRICULUM44**
ENG 2030, 2040, 2050, 2120, 2130, 2170 and/or 2350 may be used in General Education Perspectives (depends on choices).
- II. LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher)6**
_____1040 _____ and 1050 _____ or 1060 _____; or higher level courses _____
**NOTE: Language 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses.*
LLC 1050 or 1060 may be used in General Education Perspectives depending upon choices
- III. MAJOR REQUIREMENTS36**
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian. No more than 46 semester hours of English courses may be counted toward the BA Degree.
36 semester hours above the 2001 level; 24 semester hours must be at the 3000 level or above.
ENG 1000 is prerequisite to all ENG courses 2001 level and above.
- A. Required Foundations in National Literary Traditions: (9 s.h.)**
Honors courses are indicated by section number - 410 on the *Schedule of Courses*.
- | | |
|---|---|
| <p>1. British Literature – Choose one (3 s.h.):</p> <p>ENG 2010 _____ (3) British Literature to 1789
ENG 2020 _____ (3) British Literature since 1789</p> | <p>3. World Literature – Choose one (3 s.h.)</p> <p>ENG 2030 _____ (3) World Literature to 1650
ENG 2040 _____ (3) World Literature since 1650</p> |
| <p>2. American Literature – Choose one (3 s.h.)</p> <p>ENG 2120 _____ (3) African-American Literature
ENG 2130 _____ (3) Ethnic-American Literature
ENG 2310 _____ (3) American Literature to 1865
ENG 2320 _____ (3) American Literature since 1865</p> | |
- B. Literary Studies Concentration: (18 s.h.)**
- 1. Writing in the Discipline [WID] – (3 s.h.)**
ENG 3000 _____ (3) Approaches to Literary Studies (*Pre: ENG 2001*)
- 2. Four 4000 level literature courses – (12 s.h.)** (*ENG 3000 strongly recommended prior to taking 4000-level literature courses.*)

- 3. Senior Capstone in Literature – (3 s.h.) [CAP]** Choose one from: ENG 4510 (*Pre: ENG 3000; ENG 4508 & 4509 with grade of B*), 4571, 4581, 4586, 4592, 4711, 4721, 4731, 4761, 4771, 4781, 4791, 4796, 4811, 4821, 4826, 4831, 4841, 4851, 4861, 4871, 4881, 4891, 4896 (*All Pre: ENG 3000, Sr. standing*)

- C. English Electives (9 s.h.)**
- | | |
|--|--|
| <p>1. At least 6 s.h. at or above 3000 level:
_____</p> | <p>2. At least 3 s.h. at or above 2000 level:
_____</p> |
|--|--|
- IV. MINOR REQUIRED12-21**
Minimum of 9 semester hours of courses taken to fulfill minor requirements must be courses offered by Appalachian.
- V. ELECTIVES (taken to total 122 hours for the degree)15-24**
2 semester hours of free electives must be outside the major discipline. **122**
Total major (including language & minor) = 54-63 hrs; Gen Ed courses may count in major (depends on choices) – up to 12; net major 42-51 hours.

**Bachelor of Science (BS) Teaching
Degree Code 234A**

2015-2016 PROPOSED

Program of Study for English Majors

I. GENERAL EDUCATION CURRICULUM 44

ENG 2030, 2040, 2120, or 2130 may be used in General Education Perspectives (depends on choices).

II. PROFESSIONAL EDUCATION REQUIREMENTS 24

A minimum grade of C is required in each professional education course. CI 2300 & FDN 2400 are required prior to admission to Teacher Educ.

- CI 2300 ____ (2) Teaching and Learning in the Digital Age (*Entry course to teacher education*)
- FDN 2400 ____ (2) Critical Perspectives on Teaching and Learning (*Pre or Co: CI 2300*) (*Entry course to teacher education*)
- PSY 3010 ____ (3) Psychology Applied to Teaching (*Pre or Co: CI 2300*)
- SPE 3300* ____ (3) Creating Inclusive Learning Communities (*Pre: CI 2300, FDN 2400, PSY 3010*)
- CI 3400* ____ (2) Policies and Practice in Educational Assessment (*Pre: CI 2300, FDN 2400, PSY 3010*)
- CI 4900 ____ (12) Student Teaching [CAP] (*All courses in professional core must be completed with grades of C (2.0) or higher prior to student teaching, along with other courses (including methods and reading) identified within the major.*)

PROFICIENCIES:
Reading ____
English ____
Speech ____

*Admission to Teacher Education required.

NOTE: To be admitted to the Teacher Education Program students must take and satisfy testing requirements for Reading, Writing and Math areas of the PRAXIS (PPST or CBT). The PRAXIS II Area Exams are required for student teaching.

III. LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher) 6

____ 1040 ____ and 1050 ____ or 1060 ____; or higher level courses _____

*NOTE: 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses. LLC 1050 or 1060 may be used in Gen Ed Perspectives depending upon choices

IV. MAJOR REQUIREMENTS 43

A 2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major dept. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian. Honors sections are indicated by section number – 410 on the Schedule of Classes.

<p>*English Literature – Choose one course</p> <p>____ ENG 2010 British Literature to 1789 (followed by one of these) →</p> <p style="text-align: center;">OR</p> <p>____ ENG 2020 British Literature since 1789 (followed by one of these) →</p> <p style="text-align: right;">3 hrs</p>	<p>____ ENG 4870 Literature of the British Romantic Period</p> <p>____ ENG 4880 Literature of the Victorian Period</p> <p>____ ENG 4890 20th Century British Literature (1900-1945)</p> <p>____ ENG 4895 20th Century British Literature (1945-present)</p> <p>____ ENG 4820 Medieval British Literature</p> <p>____ ENG 4825 The Age of Chaucer</p> <p>____ ENG 4850 Renaissance Literature</p> <p>____ ENG 4860 Restoration & 18th Century Literature</p> <p style="text-align: right;">3 hrs</p>
<p>*American Literature – Choose one course:</p> <p>____ ENG 2310 American Literature to 1865 (followed by one of these) →</p> <p style="text-align: center;">OR</p> <p>____ ENG 2320 American Literature since 1865 (followed by one of these) →</p> <p style="text-align: center;">OR</p> <p>____ ENG 2120 African-American Literature</p> <p style="text-align: center;">OR (followed by one of these) →</p> <p>____ ENG 2130 Ethnic American Literature</p> <p style="text-align: right;">3 hrs</p>	<p>____ ENG 4580 Studies in African-American Literature</p> <p>____ ENG 4780 19th Century American Literature</p> <p>____ ENG 4790 20th Century American Literature (1900-1945)</p> <p>____ ENG 4795 20th Century American Literature (1945-present)</p> <p>____ ENG 4770 Early American Literature</p> <p>____ ENG 4780 19th Century American Literature</p> <p>____ ENG 4770 Early American Literature</p> <p>____ ENG 4780 19th Century American Literature</p> <p>____ ENG 4790 20th Century American Lit (1900-1945)</p> <p>____ ENG 4795 20th Century American Lit (1945-present)</p> <p style="text-align: right;">3 hrs</p>
<p>*Required World Literature (6 hrs)</p> <p>____ ENG 2030 World Literature to 1650 AND one of the following:</p> <p>____ ENG 2040 World Lit since 1650 OR ____ ENG 4590 World Lit</p>	<p>Required Shakespeare – Choose 1 course (3 hrs)</p> <p>____ ENG 4830 Shakespeare Early Works OR</p> <p>____ ENG 4840 Shakespeare Later Works</p>
<p>Required: Choose ONE from the following Literary Criticism, Genre Study, and Creative Writing Courses:</p> <p>____ ENG 3000 Approaches to Literary Studies (<i>Pre: ENG 2001</i>)</p> <p>____ ENG 3170 Advanced Studies in Film (<i>Pre: ENG 2170</i>)</p> <p>____ ENG 3530-3549 Selected Topics</p> <p>____ ENG 3651 or 3652 Creative Writing: Poetry or :Prose</p> <p>____ ENG 3710 Studies in Women & Literature</p> <p>____ ENG 3720 Studies in the Short Story</p> <p>____ ENG 3740 Studies in Poetry</p> <p>____ ENG 3750 Studies in Drama</p> <p>____ ENG 4720 Appalachian Literature</p> <p>____ ENG 4730 The Novel</p> <p>____ ENG 4760 Literary Criticism</p> <p>____ ENG 4800 Colloquium (1-4 hrs)</p> <p>____ ENG 4810 Advanced Folklore</p> <p>____ ENG 4508 Jr/Sr Honors Sem (American Lit)</p> <p>____ ENG 4509 Jr/Sr Honors Sem (World Lit)</p> <p style="text-align: right;">3 hrs</p>	
<p>Section Two: Language, Writing, and Pedagogy **Required before beginning student teaching.</p> <p>____ ENG 3300 Applied Grammar**</p> <p>____ ENG 3580 Tchg Comp: Theory, Practice, & Pedagogy** [WID] (<i>Pre: ENG 2001,3300</i>)</p> <p>____ CI/ENG 4591* Theory & Practice in the Tchg of HS English** (<i>*min grade C required</i>)</p> <p>____ ENG 3610 Studies in the Principles of Language**</p> <p>____ ENG 4560 Adolescent Literature</p> <p>____ ENG 4660 History of the English Language**</p> <p>____ ENG 3900 Internship in Secondary Schools**</p> <p style="text-align: right;">19 hrs</p>	

V. REQUIRED COGNATE 3

RE 4620* ____ (3) Reading Instruction in the Middle/Jr & Sr High School *Minimum "C" grade required

VI. MINOR (optional)

VII. ELECTIVES (taken to total 122 hours for the degree) 2

2 semester hours of free electives must be outside the major discipline.

122

Total major (including language & minor) = 52 hrs; Gen Ed courses may count in major (depends on choices) – up to 6; net major 46 hours.

~~2014-2015~~ 2015-2016 (proposed in red)

Bachelor of Arts (BA)
Degree Code 269A

Program of Study for Physics Majors

I. GENERAL EDUCATION CURRICULUM44
CHE 1101/1110 and 1102/1120 fulfill Science Inquiry perspective. MAT 1110 fulfills Quantitative Literacy.

II. LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher)6
_____ 1040 ____ and 1050 ____ or 1060 ____; or higher level courses _____
**NOTE: Language 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses.
FL 1050 or 1060 may be used in General Education Perspectives depending upon choices*

III. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above)47
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian. No more than 46 semester hours of Physics and Astronomy courses may be counted toward the BA Degree.

A. Physics Core Requirements (36 semester hours):

PHY 1103 _____ (4) General Physics I (Co: MAT 1020/1025) **OR** PHY 1150 _____ (5) Analytical Physics I (Co: MAT 1110)
PHY 1104 _____ (4) General Physics II (Pre: PHY 1103) PHY 1151 _____ (5) Analytical Physics II (Co: MAT 1120)
PHY 2010 _____ (4) Intermediate Physics I (Pre: PHY 1104/1151; MAT 1120)
PHY 2020 _____ (4) Intermediate Physics II (Pre: PHY 2010; MAT 2130)
PHY 2210 _____ (3) Physics Laboratory Techniques and Data Analysis [**WID**] (Co: ENG 2001, PHY 2020)
PHY 3010 _____ (3) Classical Mechanics (Pre: PHY 3001 with grade of "C" or better; Co: MAT 3130)
PHY 3020 _____ (3) Electromagnetic Fields and Waves (Pre: PHY 2020 & PHY 3001 with minimum grade of "C"; MAT 3130)
PHY 4210 _____ (~~3~~ 4) Methods of Experimental Physics [**CAP**] (Pre: PHY 2210)

~~6 to 8~~ 5 to 7 semester hours of physics and astronomy electives to bring total in Area A to 36 hrs:

B. Mathematics (15 semester hours)

MAT 1110 _____ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120 _____ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)
MAT 2130 _____ (4) Calculus with Analytic Geometry III (Pre: MAT 1120 w/min grade C-)
MAT 3130 _____ (3) Introduction to Differential Equations (Pre: MAT 1120)

C. Chemistry (8 semester hours)

CHE 1101 _____ (3) Introductory Chemistry I (Co: CHE 1110)
CHE 1110 _____ (1) Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102 _____ (3) Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120 _____ (1) Introductory Chemistry II Lab (Co: CHE 1102)

IV. MINOR REQUIRED.....12-21
Minimum of 9 semester hours of courses taken to fulfill minor requirements must be courses offered by Appalachian.

V. ELECTIVES (taken to total 122 hours for the degree).....4-13
2 semester hours of free electives must be outside the major discipline. 122

Total major requirements – 77-86; Gen Ed courses that may count in major (depends on choices) – 15; net major 62-71 hours;

2014-2015 2015-2016 (proposed in red)

Bachelor of Science (BS) Non-Teaching
Degree Code 270*
Concentration Code 270B

Program of Study for Physics Majors
APPLIED PHYSICS

I. GENERAL EDUCATION CURRICULUM44

Physics 1150 & 1151 or 1103 & 1104 will fulfill Science Inquiry perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (not including up to 13 s.h. counted in Area 1, above)49

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Physics (32 semester hours)

- | | | | | | | |
|----------|-------------------------|--|-----------|----------|-----------|--------------------------------------|
| PHY 1103 | _____ (4) | General Physics I (Co: MAT 1020/1025) | OR | PHY 1150 | _____ (5) | Analytical Physics I (Co: MAT 1110) |
| PHY 1104 | _____ (4) | General Physics II (Pre: PHY 1103) | | PHY 1151 | _____ (5) | Analytical Physics II (Co: MAT 1120) |
| PHY 2010 | _____ (4) | Intermediate Physics I (Pre: PHY 1104/1151; MAT 1120) | | | | |
| PHY 2020 | _____ (4) | Intermediate Physics II (Pre: PHY 2010; MAT 2130) | | | | |
| PHY 2210 | _____ (3) | Physics Laboratory Techniques and Data Analysis [WID] (Pre: ENG 2001; Co: PHY 2020) | | | | |
| PHY 3210 | _____ (3) | Modern Physics I (Pre: PHY 1151; Co: PHY 2010) | | | | |
| PHY 4210 | _____ (3 4) | Methods of Experimental Physics [CAP] (Pre: PHY 2210) | | | | |

~~5-7~~ 4-6 hours of Physics electives required to complete 32 semester hours:

B. Mathematics (12 semester hours)

- | | | |
|----------|-----------|--|
| MAT 1110 | _____ (4) | Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-) |
| MAT 1120 | _____ (4) | Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-) |
| MAT 2130 | _____ (4) | Calculus with Analytic Geometry III (Pre: MAT 1120 w/min grade C-) |

C. At least 18 semester hours in an emphasis area

A committee consisting of three faculty members, at least two of which must be from the Department of Physics and Astronomy, must approve a program of study and any subsequent modification. Some suggested emphasis areas are: astrophysics, geophysics, environmental physics, engineering electronics, radiation safety physics, medical physics, technical management, industrial physics, computational physics, mathematical physics, and technical writing. Many other combinations for emphasis areas are possible and will be developed in consultation with the departmental chairman and the faculty advisory committee.

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree).....29

2 semester hours of free electives must be outside the major discipline.

122

Total major requirements – 62; Gen Ed courses that may count in major (depends on choices) – 13; net major 49 hours;

~~2014-2015~~ 2015-2016 (proposed in red)

Bachelor of Science (BS)

Degree Code 270*

Concentration Code 270X

Program of Study for Physics Majors

PHYSICS

SECONDARY EDUCATION LICENSURE

I. GENERAL EDUCATION CURRICULUM 44

Physics 1150 & 1151 or 1103 & 1104 fulfill the Science Inquiry perspective. MAT 1110 fulfills the Quantitative Literacy requirement.

II. PROFESSIONAL EDUCATION REQUIREMENTS 24

A minimum grade of C is required in each professional education course. CI 2300 & FDN 2400 are required prior to admission to Teacher Educ.

CI 2300 ____ (2) Teaching and Learning in the Digital Age (Entry course to teacher education)

FDN 2400 ____ (2) Critical Perspectives on Teaching and Learning (Pre or Co: CI 2300) (Entry course to teacher education)

PSY 3010 ____ (3) Psychology Applied to Teaching (Pre or Co: CI 2300)

SPE 3300* ____ (3) Creating Inclusive Learning Communities (Pre: CI 2300, FDN 2400, PSY 3010)

CI 3400* ____ (2) Policies and Practice in Educational Assessment (Pre: CI 2300, FDN 2400, PSY 3010)

CI 4900 ____ (12) Student Teaching [CAP] (All courses in professional core must be completed with grades of

C (2.0) or higher prior to student teaching, along with other courses (including methods and reading) identified within the major.

PROFICIENCIES:

Reading ____

English ____

Speech ____

*Admission to Teacher Education required.

NOTE: To be admitted to the Teacher Education Program students must take and satisfy testing requirements for Reading, Writing and Math areas of the PRAXIS (PPST or CBT). The PRAXIS II Area Exams are required for student teaching.

III. MAJOR REQUIREMENTS (not including 12 s.h. counted in Area I, above) 57

2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Area of Specialization for teaching physics: (minimum of 32 semester hours)

PHY 1103 ____ (4) General Physics I (Co: MAT 1020/1025) OR PHY 1150 ____ (5) Analytical Physics I (Co: MAT 1110)

PHY 1104 ____ (4) General Physics II (Pre: PHY 1103) PHY 1151 ____ (5) Analytical Physics II (Co: MAT 1120)

PHY 2010 ____ (4) Intermediate Physics I (Pre: PHY 1104/1151; MAT 1120)

PHY 2020 ____ (4) Intermediate Physics II (Pre: PHY 2010; MAT 2130)

PHY 2210 ____ (3) Physics Laboratory Techniques and Data Analysis [WID] (Co: ENG 2001, PHY 2020)

PHY 3210 ____ (3) Modern Physics I (Pre: PHY 1151; Co: PHY 2010)

PHY 3400 ____ (3) Physics Instruction Practicum (Pre: PHY 1104 or 1151)

PHY 3520 ____ (1) Instructional Assistance (Pre: Jr/Sr standing)

PHY 4210 ____ (3-4) Methods of Experimental Physics [CAP] (Pre: PHY 2210)

~~1 to 3~~ 0 to 2 hours in PHY & AST electives for minimum of 32 hours in Physics _____

B. Biology (4 sh)

BIO 1801 ____ (4) Biological Concepts I (Co: CHE 1101)

C. Geology (4 sh)

GLY 1101 ____ (4) Introduction to Physical Geology

D. Chemistry (8 sh)

CHE 1101 ____ (3) Introductory Chemistry I (Co: CHE 1110)

CHE 1110 ____ (1) Introductory Chemistry I Lab (Co: CHE 1101)

CHE 1102 ____ (3) Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)

CHE 1120 ____ (1) Introductory Chemistry II Lab (Co: CHE 1102)

E. Mathematics (12 sh)

MAT 1110 ____ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)

MAT 1120 ____ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

MAT 2130 ____ (4) Calculus with Analytic Geometry III (Pre: MAT 1120 w/min grade C-)

F. Other Required Courses (6 sh) (*Minimum "C" grade required)

PHY 3521 ____ (1) Secondary Science Field Experience (Pre: Jr/Sr standing)

G S 4403* ____ (3) Teaching Science in Middle and High Schools [WID] (Pre: ENG 2001)

R E 4630* ____ (2) Reading in the Content Areas

G. Additional Required Courses (minimum 3 sh) (Select from the following)

AST 1001 ____ (4) Introductory Astronomy I - Solar System

STT 2810 ____ (3) Basic Statistics (Pre: MAT 1010)

MAT 3130 ____ (3) Intro to Differential Equations (Pre: MAT 1120)

PHY 3140 ____ (3) Environmental Phy (Pre: 1104/1151)

PHY 4020 ____ (3) Comp Meth in Physics & Engineering (Pre: PHY 2010&2020)

PHY 4330 ____ (3) Digital Electronics

PHY 4730 ____ (3) Analog Systems (Pre: PHY 3210)

w/"C" or better;
MAT 2130)

IV. MINOR (optional)

V. ELECTIVES (taken to total 122 hours for the degree)..... 2

Total hours required for graduation

127

Total major requirements – 69; Gen Ed courses that may count in major (depends on choices) –12; net major 57 hours;

NEW

PROGRAM OF STUDY FOR THE GRADUATE CERTIFICATE IN SYSTEMIC MULTICULTURAL COUNSELING

Admission Requirements: Master's degree* from an accredited college or university or enrollment in a master's program; complete application to the Graduate School; a completed Department of Human Development and Psychological Counseling questionnaire.

*Applicants with baccalaureate degrees will be considered for admission provided they have experience working in a mental health related field.

Location: On Campus

Course Requirements for the Graduate Certificate in Systemic Multicultural Counseling (Code: 447A)		
Semester Hours Required (minimum): 12		
Required Courses	HPC 5510: Multicultural Counseling (3) HPC 5270: Theories of Marriage and Family Therapy I (3) HPC 6525: Advanced Systemic Multicultural Counseling (3) Choose one of the following courses: <ul style="list-style-type: none">• HPC 5271: Theories of Marriage and Family Therapy II (3)• HPC 5272: Individual and Family Development (3)• HPC 5274: Substance Abuse in Family Systems (3)• HPC 5570: Counseling the Addicted Person (3)	12

NEW

PROGRAM OF STUDY FOR THE GRADUATE CERTIFICATE IN READING EDUCATION

This certificate does not lead to NC licensure; however, completion of the 12-hour certificate partially fulfills the 18-hour requirement for the add-on Reading Education license for NC and may be used toward the fulfillment of the 39-hour requirement for the MA degree in Reading Education.

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School.

Location: On Campus and Off Campus; Off-Campus applications are accepted on a rolling basis; please contact the Office of Distance Education for locations (<http://www.distance.appstate.edu>).

Course Requirements for the Graduate Certificate in Reading Education (Code: xxxA) Semester Hours Required (minimum): 12		
Required Courses	Students will select four courses from the following with advisor approval: <ul style="list-style-type: none">• RE 5100: Teaching Beginning Readers and Writers (3)• RE 5111: Issues, Trends, and Practices in Reading (3)• RE 5130: Teaching the Language Arts (3)• RE 5140: Advanced Study of Children's Literature (3)• RE 5531: Selected Topics (3) – <i>when topic is related to the Clinical Teaching of Reading</i>• RE 5715: Reading Assessment and Correction (3)• RE 5725: Practicum in the Clinical Teaching of Reading (3)• RE 5730: Reading and Writing Instruction for Intermediate and Advanced Learners (3)	12

REVISED

Course Requirements for the Master of Science in Computer Science (Code: 224A) Semester Hours Required (minimum): 30 (THESIS) or 36		
Required Courses	<ul style="list-style-type: none">• CS 5100: Seminar in Computer Science (3)• CS 5110: Design and Analysis of Algorithms (3)• CS 5483: Computer Architecture (3)• CS 5520: Operating Systems (4)• CS 5666: Software Engineering (3)	16
Thesis Option (CHOOSE ONE)	<p>With Thesis (14 s.h.)</p> <ul style="list-style-type: none">• CS 5998: Thesis Preparation (3)• CS 5999: Thesis (6)• Approved Electives (5) <p>OR</p> <p>Without Thesis (20 s.h.)</p> <ul style="list-style-type: none">• CS 5800: Project (3)• 17 s.h. of approved graduate electives	14 or 20