## UNDERGRADUATE AND PROFESSIONAL MAJOR CHANGE BULLETIN NO. 11

Spring 2015
---REQUIREMENTS---
The requirements listed below reflect the undergraduate major curricular changes approved by the Catalog Subcommittee since approval of the last Undergraduate Major Change Bulletin. All changes are underlined. Deletions are crossed out. If a description, semester, or footnote has been left off a schedule of studies presentation, then no changes were made. The column to the far right indicates the date each change becomes effective.

| Dept | Proposed | Effective <br> Date |
| :---: | :---: | :---: |
| Agricultural and Food Systems <br> Revise graduation requirements for Bachelor of Science in Agriculture and Food Systems Agriculture and Food Security | Agriculture and Food Security (120 Hours) <br> Third Year <br> Second Term <br> Hours <br> SOIL SCI/AFS $302[\mathrm{M}]^{2}$ <br> AFS Core Systems Elective ${ }^{3}$ <br> IPM 452 <br> Electives <br> Fourth Year <br> Second Term <br> Hours <br> 400-500-level Seminar in any CAHNRS Dept ${ }^{4}$ <br> AFS 401 [CAPS] <br> SOIL SCI 441 <br> Electives <br> Footnotes <br> ${ }^{2}$ SOIL SCI 414+and 415 can be taken as an alternative to SOIL SCI/AFS 302. However another [M] course will be required. <br> ${ }^{3}$ AFS Core Systems Electives: AGTM 305;-; AGTM 310;- ANIM SCI 464[M]; ANIM SGI 472[M];; ANIM SCI 474[M];; BIOLOGY 372[M];; CROP SCI 302;; ECONS 351;; HORT 320;; NATRS 300;; SOIL SCI 368;; or other systems courses approved by your advisor. <br> ${ }^{4}$ 400-500-level Seminar: AGTM 451; CROP SCI/SOIL SCI 412; HORT/VIT ENOL 409; or as approved by advisor. | 8-15 |
| Animal Sciences <br> Revise graduation requirements for Bachelor of Science in Animal Sciences Animal Management | Animal Management (120 Hours) <br> A student may certify as an animal sciences major after completion of 24 semester hours, including ANIM SCI 101, and a cumulative gpaGPA of 2.0 or better. <br> At least 40 of the total hours required for the bachelor's degree in this program must be in 300-400-level courses. <br> First Year | 8-15 |



requirements for A student may certify as an animal sciences major after completion of Bachelor of Science in
Animal Science -Pre-Veterinary Medicine/Science

24 semester hours, including ANIM SCI 101, and a cumulative gpaGPA of 2.0 or better.
At least 40 of the total hours required for the bachelor's degree in this program must be in 300-400-level courses.

First Year
First Term Hours
ANIM SCI 1013
ANIM SCI 180 1
CHEM 105 [PSCI] 4
HISTORY 105 [ROOT] 3
MATH 107 Requirement ${ }^{1}$ 3-4
Second Term Hours
BIOLOGY 106 [BSCI] 4
CHEM 106 4
ENGLISH 101 [WRTG] 3
MATH 140 recommended Requirement ${ }^{1}$, or Electives $\underline{\underline{2-4}}$
Second Year
First Term Hours
ANIM SCI 172 or 1744
BIOLOGY 107 4
CHEM 345 4
COM 102 [COMM] or H D 205 [COMM] 3 or 4
Creative \& Professional Arts [ARTS]
3

Second Term Hours
ANIM SCI 178 or $280 \quad 1$
Humanities [HUM] 3
Lab Management Requirement $^{2}$ ́ㅗㄴ
MBIOS $301 \underline{303}$
4
STAT 212 [QUAN], 412 or PSYCH $311^{3} \quad \underline{3}$ or 4
VET CLIN 361 3
Electives $\underline{3}$
Complete Writing Portfolio
Third Year
First Term Hours
ANIM SCI 285 or 346
ANIM SCI 313 4
ANIM SCI 3303

|  |  |  |
| :---: | :---: | :---: |
| ASIA <br> Revise graduation | Asian Studies (120 Hours) | 8-15 |

requirements for Bachelor of Arts in Asia Studies.


|  | 300-400-level Electives <br> ASIA 270 or 314 [M] <br> Diversity [DIVR] <br> Major Coursework ${ }^{\frac{3}{}}$ <br> 300-400-level Electives <br> Second Term <br> Hours <br> 300-400-level Major Electives ${ }^{4}$ <br> Creative \& Professional Arts [ARTS], Humanities [HUM], or Social Sciences [SSCI] <br> Writing in the Major Courserork [M] <br> Fourth Year <br> First Term <br> Hours <br> FOR LANG 410 [CAPS] or ASIA 473 [CAPS] <br> Integrative Capstone [CAPS] <br> Major Coursework ${ }^{3}$ <br> 300-400-level Major Electives ${ }^{4}$ <br> Second Term <br> Hours <br> 300-400-level Electives <br> Major Coursework ${ }^{\underline{3}}$ <br> Footnotes <br> ${ }^{1}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semesters and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{+2} 16$ hours of college level study of a single Asian language (e.g., CHINESE/JAPANESE 101, 102, 203, 204). Languages not taught at WSU may be studied through distance learning programs, intensive summer courses, etc. For the second year of languages not taught at WSU, students may substitute 8 hours of any Asian study abroad credit. Although native speakers of an Asian language may be exempt from the language requirement and take 16 additional credit hours of ASIA courses, they are encouraged to complete a minimum of one year college level study of a different Asian language. <br> ${ }^{3}$ Disciplinary Distribution of Major Coursework: 12 hours ( 6 hours minimum fromeach of the following groups): Asia humanities courses; and Asia social science courses (6 credits, minimum). Choose from ANTH 306, ASIA 301; HISTORY 270, 271, 272, or 275. Asia Humanities courses ( 6 credits, minimum). Choose from CHINESE 111, 120, 121, 131; FINE ART 302 [M]; FOR LANG 130, 220; HISTORY 273, 370 373, 374; JAPANESE 120; PHIL 280, 314 [M], or 315 [M]. <br> 4 Additional requirements: A minimum of 18 hours of 300-400-level ASIA courses; and 6 hours of Writing in the Major [M] courses. Note: Courses may be used to satisfy requirements in more than one of the above categories. Students should consult their advisor to determine when courses are offered. Relevant 300-400-level courses not crosslisted with ASIA may be counted toward a major or minor if approved by the Director of the Asia Program. Study Abroad is very strongly encouraged. Gontact your advisor and the Education Abroad Office for more information. Geographic Distribution of Major Coursework (Optional): Students who complete a minimum of 9 hours on a specific region or country will receive a certificate of concentration within Asian Studies on that particular region or country (e.g. East Asia, South Asia, Middle East, China, Japan). |  |
| :---: | :---: | :---: |
| Asia <br> Revise requirements | Certificate in East Asian Studies for Business Majors | 8-15 |


| for Certificate in East Asian Studies for Business Majors | (Minor) <br> The Certificate in East Asian Studies for College of Business Majors requires a total of 17 credit hours and is open to any declared College of Business undergraduate major in good standing. <br> The requirements are: CHINESE 101 and 102 or JAPANESE 101 and 102 or other East Asia Language available through study abroad; one from ASIA 121, 275, 315, 373, 374, 475, 476, or 477; ASIA 479; and one from I BUS 380, HBM/I BUS 435, MGTOP/I BUS 453, 482, ECONS 327/I BIS BUS 470, or FIN/I BUS 481 or MKTG/I BUS 482. Students who complete two semesters of foreign language beyond the one-year requirement may waive three credits required from ASIA 121, $275,315,374,475$, or 477 . Study abroad is encouraged and appropriate credit toward completion of certificate will be accepted at the discretion of the Asia Program Director. No more than 4 hours earned at other institutions that may apply towards the certificate and no more than 4 hours may be pass/fail. Native speakers of an East Asian language may waive the foreign language requirement, but must take eight additional hours from the list of "cultural survey" courses (see department for an approved list). A minimum cumulative GPA of 2.0 is required for successful completion of the certificate. |  |
| :---: | :---: | :---: |
| Asia <br> Revise requirements for Certificate in East Asian Studies for Engineering and Architecture Majors | Certificate in East Asian Studies for Engineering and Architecture Majors (Minor) <br> The Certificate in East Asian Studies for College of Engineering and Architecture Majors requires a total of 17 credit hours and is open to any declared College of Engineering and Architecture undergraduate major in good standing. <br> The requirements are: CHINESE 101 and 102 or JAPANESE 101 and 102 or other East Asia Language available through study abroad; two from ASIA 121, 274, 315, 373, 374, 475, 476, or 477; and ASIA 479. Students who complete two semesters of foreign language beyond the one-year requirement may waive three credits required from ASIA 121, $275,315,374,475$, or 477 . Study abroad is encouraged and appropriate credit toward completion of certificate will be accepted at the discretion of the Asia Program Director. No more than 4 hours earned at other institutions that may apply towards the certificate and no more than 4 hours may be pass/fail. Native speakers of an East Asian | 8-15 |


|  | language may waive the foreign language requirement, but must take eight additional hours of courses from the list of "cultural survey" courses (see department for an approved list). A minimum cumulative GPA of 2.0 is required for successful completion of the certificate. |  |
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| Critical Culture, Gender, \& Race Studies Revise requirements for minor in Comparative Ethnic Studies | Comparative Ethnic Studies <br> Students may complete a minor in Comparative Ethnic Studies (CES). For the minor, students are expected to fulfill all the University's requirements for graduation, either CES 101 or CES 201, as well as an additional $18 \underline{15}$ hours of coursework in CES, nine hours of which must be 300-400 level courses taken in residence at WSU or through WSUapproved education abroad or educational exchange courses. | 8-15 |
| Economic Sciences <br> Revise graduation requirements for Bachelor of Science in Economic Science Quantitative Economics | Quantitative Economics (120 Hours) | 8-15 |



|  | 102 is offered Spring semester. <br> ${ }^{32}$ Economics Emphasis Courses (3 courses required from one area): (1) Math: MATH 273, MATH 301, and MATH315; (2) Management Operations: MGTOP 340, MGTOP412, and MGTOP-452; (3) Computer Science: CPT S 121, GPT S-122, and GPT S 224. |  |
| :---: | :---: | :---: |
| Economic Sciences Revise requirements for minor in Business Economics | Business Economics <br> To be eligible to certify in a business economics minor, students must have a cumulative 2.0 gpa GPA. A minor in economics requires 18 hours of ECONS courses, nine of which must be at the 300-400 level with an overall 2.0 gpa GPA in the required courses and taken in residence at WSU or through WSU-approved education abroad or educational exchange courses. ECONS 101 and 102 (or 198 and a <br>  326, and 404 are required. | 8-15 |
| Economic Sciences Revise requirements for minor in Environmental and Resource Economics and Management | Environmental and Resource Economics and Management <br> The minor in Environmental and Resource Economics and Management requires 16 hours. The following courses are required: ECONS 330, 430, 431, 432 ar and 433; one of ECONS 301, or 305, or 326; and 4 elective credits in ECONS. 9 hours of upper-division work must be taken in residence at WSU or through WSU-approved education abroad or educational exchange courses. A student wishing to declare a minor should consult with an advisor as early as possible to develop the required program. | 8-15 |
| Economic Sciences Revise requirements for minor in Sustainable Development | Sustainable Development <br> The program offers a minor in sustainable development. The minor is comprised of ECONS 326, one course from each of the following four aspect areas: policy, history, and theory (ARCG ID 202, GRS 435, ENVR SCI 335[M], HISTORY 409, HISTORY 494, NATRS 438, PHIL 370, POL S 430, or PSYCH 466); environmental (ARCH 490, ARCH 494, BIOLOGY 330, BIOLOGY 372_M], CE 401, CROPS SCI 360, ENVR SCI 101, ENVR SCI 285, ENVR SCI/GEOLOGY 303, ENVR SCI 444, GEOLOGY 303 or NATRS 300, or SOL SCI 301[M]); social/cultural (ANTH 203, ANTH 309, ANTH/SOC 418, NATRS 312, SOC 331, SOG 332, SOG 415, SOG 430, WOMEN ST 332, or WOMEN ST 460); economic (ECONS 330, ECONS 427, ECONS 428, ECONS 430, ECONS 431, I | 8-15 |


|  | BUS 380, or IBUS 496); and one additional course from any of the aspect areas. The minor requires 18 credit hours, with at least 9 hours at the 300-400-level taken in residence at WSU or through WSUapproved education abroad or educational exchange courses. All coursework for the minor must be graded and a minimum gpa GPA of 2.0 shall be maintained. Students wishing to apply for the minor may do so with the Department of Economics School of Economics Sciences. |  |  |
| :---: | :---: | :---: | :---: |
| Educational <br> Leadership, Sport <br> Studies, and <br> Educational/ <br> Counseling <br> Psychology <br> Revise graduation requirements for Bachelor of Arts in Sport Management | Sport Management (1210 Hours) |  | 8-1 |
|  | First Year |  |  |
|  | First Term | Hour |  |
|  | Biological Sciences [BSCI] or SCIENCE 101 [SCI] ${ }^{1}$ | 3 or 4 |  |
|  | Diversity [DIVR] | $\underline{3}$ |  |
|  | ENGLISH 101 [WRTG] | 3 |  |
|  | HISTORY 105 [ROOT] | 3 |  |
|  | Humanities [HUM] | 3 |  |
|  | Social Sciences [SSCI] | 3 |  |
|  | Electives | 3 |  |
|  | Second Term | Hour |  |
|  | Biological Sciences [BSCI] or SCIENCE 101 [SCI ${ }^{+}$ | 3 or 4 |  |
|  | COM 102 [COMM] | 3 |  |
|  | Piversity [DIVR] | 3 |  |
|  | HISTORY 105 [ROOT] | $\underline{3}$ |  |
|  | MATH 205 [QUAN] | 3 |  |
|  | Physical Sciences [PSCI] or SCIENCE 102 [SCI] ${ }^{1}$ | 4 or 3 |  |
|  | Electives | 3 |  |
|  | Second Year |  |  |
|  | First Term | Hour |  |
|  | ACCTG 230 | 3 |  |
|  | Creative \& Professional Arts [ARTS] | 3 |  |
|  | Physical Sciences [PSCI] or SCIENCE 102 [SCI] ${ }^{1}$ | 4-or 3 |  |
|  | SPMGT 276 | 3 |  |
|  | Electives | 36 |  |
|  | Second Term | Hour |  |


|  | $s$ |
| :---: | :---: |
| Area of Specialization ${ }^{\underline{2}}$ | 6 |
| SPMGT 290 | 3 |
| SPMGT 394 | 2 |
| Electives | 6 |
| Complete Writing Portfolio |  |
| Third Year |  |
| First Term | Hour |
| Area of Specialization ${ }^{\underline{2}}$ | 6 |
| SPMGT 365 or 367 [M] | 3 |
| SPMGT 374 | 3 |
| SPMGT 377 | 3 |
| SPMGT 394 | 1 |
| Second Term | Hour $s$ |
| Area of Specialization ${ }^{\underline{2}}$ | 6 |
| ENGLISH 402 | 3 |
| SPMGT 365 or 367 | 3 |
| SPMGT 394 | 1 |
| SPMGT 464 | $\underline{3}$ |
| SPMGT 468 [M] | $\underline{3}$ |
| SPMGT 489 | 3 |
| Fourth Year |  |
| First Term | Hour |
| Area of Specialization ${ }^{2}$ | $\underline{3}$ |
| ENGLISH 402 | $\underline{3}$ |
| Integrative Capstone [CAPS] | 3 |
| SPMGT 464 | 3 |
| SPMGT 468 | 3 |
| SPMGT 488 | 2 |
| SPMGT 489 | $\underline{3}$ |
| SPMGT 490 | 1 |
| Electives | 4 |
| Second Term | Hour |
| SPMGT 491 | 10-12 |


|  | Footnotes <br> ${ }^{1}$ For a total of 7 units-one Biological Science [BSCI] and one Physical Science [PSCI] course, including one lab course, or 8 units of SCIENCE 101 [SCI] and 102 [SCI]. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> $\underline{\underline{2}} \underline{21 \text { credits in area of specialization required. Business Specialization: any ECONS course or }}$ course offered by the College of Business except ACCTG 230. Communication Specialization: Any course offered by the College of Communication. |  |
| :---: | :---: | :---: |
| Educational <br> Leadership, Sport <br> Studies, and <br> Educational/ <br> Counseling <br> Psychology <br> Revise graduation requirements for Bachelor of Science in Kinesiology - Health and Fitness Teacher Certificate | Health and Fitness Teacher Certificate (BS Kinesiology) (143 139 Hours) <br> First Year <br> First Term <br> CHEM 101 [PSCI] or 105 [PSCI] <br> ENGLISH 101 [WRTG] <br> KINES 199 <br> PE ACTIV 112 Course $^{1}$ <br> PSYCH 105 [SSCH] <br> STATS 212 [QUAN] <br> MATH requirement, if needed <br> Second Term <br> BIOLGOY BIOLOGY 102 [BSCI] or 106 [BSCI] <br> BIOLOGY 140 <br> HISTORY 105 [ROOT] <br> KINES 264 <br> PE_ACTIV Elective-Course ${ }^{1}$ <br> TCH LRN 300 <br> Second Year <br> First Term <br> ENGLISH 201 [WRTG], 301 [WRTG], 302 [M], or 402 <br> [WRTG] [M] ${ }^{2}$ <br> KINES 262 <br> PE_ACTIV Elective-Course ${ }^{1}$ <br> PSYCH 105 [SSCI] <br> STATS 212 [QUAN] <br> TCH LRN 301 <br> Certify in Education and Major <br> Second Term <br> BIOLOGY 251 <br> Humanities [HUM] <br> Hours <br> Hours <br> Hours | 8-15 |



|  | Fifth Year |  |
| :---: | :---: | :---: |
|  | Footnotes <br> $\stackrel{1}{ } 5$ PE ACTIV courses required. Must include PE ACTIV 112, 114, 120/121, and 132. <br> $\underline{2}$ One from ENGLISH 201, 301, 302 [M] or 402 is required for admission to the Teacher Preparation Education Program. Students who take ENGLISH 302 will need to take an additional [WRTG] or [COMM] course. |  |
| Electrical <br> Engineering and <br> Computer Science <br> Revise footnote 3 for <br> Bachelor of Science in <br> Computer <br> Engineering | Computer Engineering Requirements (123 Hours) <br> Footnotes <br> Senior Design Electives adhere to one of the following sequences: (1) ASIC \& Digital <br> Systems: E E $434 \underline{416}$ and 416 434: ASIC \& Digital Systems; E E 466 and E E 416: VLSI <br> Design; (2) Embedded and Microcomputer Systems: Gpt S CPT S 466 and E E 416; <br> Embedded and Mierocomputer Systems; (3) VLSI Design: E E 466 and 416. | 8-15 |
| Engineering and <br> Computer Science <br> WSU-V <br> Revise certification requirements and footnote 1 for Bachelor of Science in Computer Science WSU Vancouver only | Bachelor of Science, Computer Science Requirements (Vancouver Only) (120 Hours) <br> Minimum qualifications for certification in computer science are: <br> 1. Completion of MATH 171, MATH 172, CS 121, ES 122, ES 216, ES 224, ES 260, ES 261, and PHYSICS 201, or their equivalents, with a grade of C or better. <br> 2. A cumulative GPA of 2.0 or better. <br> 3. Students must be in good academic standing when they apply for certification with a 2.0 GPA or better in their prior semester's coursework. <br> Footnotes <br> 18 credit hours of option area courses are required for completion of the degree program. The option courses must be chosen from 300-400-level upper-division (CS 3XX and CS 4XX) computer science CPT S courses and may also include up to 6 hours from the following list: MATH 315, MATH 448, MATH 453, ECE 324, ECE 366, and ECE 424. <br> Other computer science-related courses may be substituted, as approved by the department. | 8-15 |
| Engineering and <br> Computer Science <br> WSU-V <br> Revise graduation requirements for <br> Bachelor of Science in <br> Mechanical <br> Engineering - WSU <br> Vancouver only | Bachelor of Science, Mechanical Engineering Requirements (Vancouver Only) (121 Hours) <br> Students who have completed at least 30 semester hours of course work and who have completed Ghem CHEM 105; Math MATH 220, 273; Mech MECH 211, 212, 215; and Phys PHYSICS 201 or their equivalents are eligible for certification into the Bachelor of Science in Mechanical Engineering program. All courses required for certification must be completed with a grade of C or better. Enrollment in many upper-division mechanical engineering courses is restricted to certified majors or minors in mechanical engineering. <br> When it becomes necessary to limit enrollment, the overall gpaGPA as well as the gpaGPA for the prerequisite courses listed will be important | 8-15 |


|  | factors. Students who have not completed all of the prerequisite courses will be placed in a pre-engineering major. <br> No courses listed in this schedule of studies may be taken on a pass/fail basis. All upper-division mechanical engineering courses must be completed with a minimum 2.0 average gpaGPA. |  |
| :---: | :---: | :---: |
| English <br> Change title and revise graduation requirements for Bachelor of Arts in English - Teaching Option | English - Teaching Option with Certification (120 Hours) | 8-15 |



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| :---: | :---: | :---: |
| English <br> Change title and revise graduation requirements for Bachelor of Arts in English - Teaching Without Certificate Option. | English - Teaching Without Gertificate-Certification Option (120 Hours) <br> First Year <br> First Term <br> Hours <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$ <br> Creative \& Professional Arts [ARTS] <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> Humanities [HUM] ${ }^{1}$ <br> Social Sciences [SSCI] | 8-15 |



|  |  |  |
| :---: | :---: | :---: |
| English <br> Revise graduation requirements for Bachelor of Arts in English - Rhetoric and Professional Writing Option | English - Rhetoric and Professional Writing Option (120 Hours) <br> Requirements in this degree are a core of eighteen hours of 300-400 level classes, twelve to eighteen hours of electives from the list of approved courses, and with the option of one or two electives six credits - with the approval of advisor - of any English or Humanities course at any level. Required courses/core (18 hours): 301, 302, 360, 362, and 460 or 461 (Prerequisite of ENGLISH 402 or 403 required for 461). One transnational lit course (chosen in consultation with advisor) from 370, 371, $372,373,460$, or 461 . Electives ( 18 hours): 308,336 , $354,355,358,361,363,375,401,402,405,410,458,461,475,476$, 495, any creative writing course deemed appropriate by CW faculty, the student, and her or his advisor. <br> First Year <br> First Term <br> Hours <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> Humanities [HUM] ${ }^{1}$ <br> Quantitative Reasoning [QUAN] | 8-15 |



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| :---: | :---: | :---: |
| English <br> Revise graduation requirements for Bachelor of Arts in English - Creative Writing Option | English - Creative Writing Option (120 Hours) <br> Requirements in this option involve a minimum of 4539-credit hours, approximately half in creative writing and related professional courses, the remainder in supporting literature courses approved by the advisor. In addition to these requirements, students are urged to select UCORE courses in American and world cultures, history, and society to round out the liberal arts education that they will bring to careers in creative writing, editing, publishing, and related fields. <br> First Year | 8-15 |



|  | 300-400-level Creative Writing or Literature ElectiveENGLISH or HUMANITY ${ }^{5}$ <br> ENGLISH 451 [M], or 452, or 453 <br> Footnotes <br> ${ }^{\underline{1}}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{42}$ At least one from HUMANITY 101, 103, 302, 303 [M], 304, 335, 350, 410, or 450 is required. Upper-division courses are not recommended for first-year students. <br> ${ }^{23}$ See advisor for approved list of courses. Approved courses include 300-400-level ENGLISH courses, AMER ST 470, 472, CES, 313, 314, 315, 331 332, WOMEN ST 306, 309, 382, and 409. <br> 4 Writers of Color courses are: ENGLISH 311, 314 [M], 321, 322 [M], 341 [M], 345 [M], and 489, or as approved by advisor. <br> ${ }^{5}$ Approved courses include any 300-400-level ENGLISH courses not used to fulfill other requirements. |  |
| :---: | :---: | :---: |
| Foreign Languages and Cultures <br> Revise graduation requirements for Bachelor of Arts in Foreign Languages and Culture - French Option | French (120 Hours) <br> A minimum of 34 hours beyond the 203 level (or the equivalent level in competence) in the major language is required for a Bachelor of Arts degree in Foreign Languages and Cultures. FRENCH 101, 102, and 203 do not count toward the major. Students who place into 102 and receive a B or better qualify for an additional 4 departmental advanced placement credits; students placing into 203 or above and receiving a B or better qualify for 8 departmental advanced placement credits. A maximum of 8 departmental AP credits is possible. See department for details. <br> Majors must complete either a minor in a second foreign language, a concentration of at least 16 credits in a related field, or a second major. <br> No course in which a C- or lower grade is earned will be counted toward the major or minor. 300-400-level courses taken pass, fail may not be included for credit toward the major. No course may be repeated for credit toward the major unless thus designated in the catalog. No course may count for both the major and the minor. <br> Majors and prospective majors are strongly encouraged to spend at least one semester abroad, living in the target culture and enhancing their fluency. Many accredited study abroad programs are available; students should work with their advisers in the selection of a program. <br> Of the 34 hours required for the major, a minimum of 15 must be taken in residence with 6 of these hours at the 400 -level. A maximum of 12 credits per semester or 18 credits per year earned in a study abroad program may be applied toward the major. Credits for FRENCH 105, 205,305 , and 405 may not be applied toward the major or minor. | 8-15 |

All majors must complete an exit proficiency examination during the semester in which they complete the last language course of their major. There is a fee charged for the exam.

## First Year

First Term Hours
CHINESE, GERMAN, SPANISH 110, 111, 120, 121, 130, or 131
ENGLISH 101 [WRTG] 3
FOR LANG 101, 110, 120, өf 130, or 220 3
FRENCH 101 (if necessary) or higher (102, 203, or 204) 4
FRENCH 105 1
HISTORY 105 [ROOT] 3
Second Term
Hours
Biological Sciences [BSCI] with lab or SCIENCE 101 [SCH] 4
CHINESE, GERMAN, SPANISH 110, 111, 120, 121, 130, or 3
131
Greative \& Professional Arts [ARTS]
ENGLISH 101 [WRTG]
FRENCH 102 (if necessary) or higher (203 or 204)
FRENCH 105
Quantitative Reasoning [QUAN]
Second Year
First Term Hours
Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] $]^{1} \quad \underline{4}$
FRENCH 203 (if necessary), or higher (204)
FRENCH 205
Quatitative Reasoning [QUAN] (105 recommended)
Social Sciences [SSCI]
Electives ${ }^{12}$ ²
Second Term
Communication [COMM] or Written Communication [WRTG]
FRENCH 110, or 120, or 1303
FRENCH 204 4
FRENCH 205 1
Physical Sciences [PSCI] with lab or SCIENCE 102 [SCI] ${ }^{\underline{1}}$
Complete Writing Portfolio
Third Year


Foreign Languages and Cultures
Revise graduation requirements for Bachelor of Arts in Foreign Languages and Culture - Chinese Option

## Chinese Language and Culture (120 Hours)

A minimum of 34 hours beyond the 203 level (or the equivalent level in competence) in the major language is required for a Bachelor of Arts degree in Foreign Languages and Cultures. CHINESE 101, 102, and 203 do not count toward the major. Students who place into 102 and receive a B or better qualify for an additional 4 departmental advanced placement credits; students placing into 203 or above and receiving a B or better qualify for 8 departmental advanced placement credits. A maximum of 8 departmental AP credits is possible. See department for details.

Majors must complete either a minor in a second foreign language, a concentration of at least 16 credits in a related field, or a second major.

No course in which a C- or lower grade is earned will be counted toward the major or minor. 300-400-level courses taken pass, fail may not be included for credit toward the major. No course may be repeated for credit toward the major unless thus designated in the catalog. No course may count for both the major and the minor.

Majors and prospective majors are strongly encouraged to spend at least one semester abroad, living in the target culture and enhancing their fluency. Many accredited study abroad programs are available; students should work with their advisers in the selection of a program.

Of the 34 hours required for the major, a minimum of 15 must be taken in residence with 6 of these hours at the 400 -level. A maximum of 12 credits per semester or 18 credits per year earned in a study abroad program may be applied toward the major. Credits for CHINESE 105, 205,305 , and 405 may not be applied toward the major or minor.

All majors must complete an exit proficiency examination during the semester in which they complete the last language course of their major. There is a fee charged for the exam.

## First Year

First Term
Hours
CHINESE 101 or higher $(102,203,204)^{1} 4$
Creative \& Professional Arts [ARTS] $\underline{3}$
ENGLISH 101 [WRTG] 3
FOR LANG 101, 110, 120, өf 130, or 220
HISTORY 105 [ROOT] 3
Quantitative Reasoning [QUAN](105 recommended) $\underline{3}$
Social Sciences [SSCH] 3
Second Term
Hours
4


|  | First Term <br> CHINESE 306, 307, or 308 <br> Chinese Area Studies Elective ${ }^{34}$ <br> 300-400-level Electives ${ }^{23}$ <br> Second Term <br> Hours <br> CHINESE 361, 363, of 364, or 450 <br> Chinese Area Studies Elective ${ }^{34}$ <br> Integrative Capstone [CAPS] <br> 300-400-level Electives ${ }^{2 \underline{23}}$ <br> Exit Proficiency Exam <br> Footnotes <br> ${ }^{1}$ Study abroad in an immersion program in China or Taiwan is strongly recommended. <br> $\underline{2}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semesters and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{23}$ Electives must be represented by an approved university minor in a second foreign language; 16 credits in a concentrated related field; or a second major in another field. <br> ${ }^{34}$ Students must take nine- 9 credits of Chinese Area Studies required. Approved courses include: ASIA 302 [M], 314, 315 [M], 476 [M], CES 314 [M], 315 [M], POL S 333, and as approved by advisor. University requirements include a total of two [M] courses. in Ghina-related courses from other departments. For a list of approved courses, see the Department of Foreign Languages and Cultures. |  |
| :---: | :---: | :---: |
| General Studies Revise Bachelor of Science graduation requirements for General Studies Basic Medical Sciences Plan A | General Studies - Basic Medical Sciences Plan A (120 Hours) <br> At least 40 of the 120 hours for the degree must be at the 300-400level. <br> First Year <br> First Term <br> Hours <br> BIOLOGY 106 [BSCI] <br> Creative \& Professional Arts [ARTS] <br> CHEM 105 [PSCI] $^{1}$ <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> Second Term <br> BIOLOGY 107 <br> CHEM 106 <br> Greative \& Professional Arts [ARTS] <br> HISTORY 105 [ROOT] <br> MATH 140 [QUAN] or 171 [QUAN] ${ }^{2}$ <br> Second Year | 8-15 |



|  | Methods, is highly recommended, and, for some programs, required. <br> ${ }^{3}$ Students are encouraged to pursue a minor in other areas of more in-depth science minor. <br> ${ }^{4}$ An elective may be substituted for PHYSICS 101 and 102 if it is not required for entrance to a graduate or professional program. <br> ${ }^{5}$ Approved Degree Program Electives are ( 8 credits required): BIOLOGY 315, 321 [M], 324, 350, 352, 353, 393 [M], 405, 418 [M]; MBIOS 304, 305, 401, 413, 414, 423, 440, 442 , 446; NEUROSCI 301, 403 [M], 404, and 430 [M]. |  |
| :---: | :---: | :---: |
| General Studies <br> Revise Bachelor of Science graduation requirements for General Studies Basic Medical Sciences Plan B | General Studies - Basic Medical Sciences Plan B (120 Hours) <br> At least 40 of the 120 hours for the degree must be at the 300-400level. <br> First Year <br> First Term <br> Hours <br> BIOLOGY 106 [BSCI] <br> CHEM 105 [PSCI] $^{1}$ <br> Creative \& Professional Arts [ARTS] <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> Second Term <br> BIOLOGY 107 <br> CHEM 106 <br> Greative \& Professional Arts [ARTS] <br> ENGLISH 101 [WRTG] <br> MATH 140 [QUAN] or 171 [QUAN] $^{2}$ <br> Second Year <br> First Term <br> Communication [COMM] or Written Communication [WRTG] <br> CHEM 345 <br> MBIOS 301 <br> PHYSICS $101^{3}$ <br> Second Term <br> CHEM 346 - 348 <br> MBIOS 305 <br> MBIOS 306 <br> PHYSICS $102^{3}$ <br> Social Sciences [SSCI] <br> Complete Writing Portfolio <br> Third Year | 8-15 |


|  | First Term <br> Degree Program Elective ${ }^{4}$ <br> Diversity [DIVR] <br> MBIOS 303 <br> Foreign Language and/or Electives ${ }^{45}$ <br> Second Term <br> PHIL 365 [HUM], or Humanities [HUM] <br> Degree Program Elective ${ }^{4}$ <br> Foreign Language and/or Electives ${ }^{45}$ <br> Fourth Year <br> First Term <br> Creative \& Professional Arts [ARTS], Humanities [HUM], or Social Sciences [SSCI] <br> Degree Program Elective ${ }^{4}$ <br> Degree Program Elective [M] ${ }^{\underline{4}}$ <br> Electives ${ }^{45}$ <br> Second Term <br> Degree Program Elective ${ }^{4}$ <br> Degree Program Elective [M] ${ }^{4}$ <br> Integrative Capstone [CAPS] <br> Electives ${ }^{45}$ <br> Hours <br> 3-to 4 <br> Hours <br> Hours <br> Footnotes <br> ${ }^{1}$ CHEM 101 may be taken prior to CHEM 105. <br> ${ }^{2}$ MATH $107 \underline{106}$ may be taken the first semester as a prerequisite to other math MATH courses and as a co-requisite to CHEM 105. MATH 108 may also be needed. In addition to either MATH 140 or 171 a statistics course such as MATH 212, Introduction to Statistical Methods, is highly recommended, and; for some programs, required. <br> ${ }^{3}$ An elective may be substituted for PHYSICS 101 and 102 if it is not required for entrance to a graduate or professional program. <br> 4 A combination of 39 science credits, with 21 credits in 300-400-level courses, is required. 20 credits must be selected from the following list and must include a minimum of one each BIOLOGY, MBIOS, and NEUROSCI: BIOLOGY 251, 315, 321 [M], 324, 333, 350, 352, 353, 393 [M], 405, 418 [M]; MBIOS 304, 360 [M], 401, 402 [M], 413, 414, 423, 440, 442, 446; NEUROSCI 301, 403 [M], 404, and 430 [M]. <br> ${ }^{45}$ Students are encouraged to pursue a minor-in other areas of more in-depth science minor. |  |
| :---: | :---: | :---: |
| General Studies Revise graduation requirements Bachelor of Arts in Humanities for General Studies Linguistics | General Studies - Linguistics (120 Hours)  <br> First Year  <br> First Term Hours <br> Biological Sciences [BSCI] with lab or SCIENCE 101[SCI] 4 <br> ENGLISH 101 [WRTG] 3 | 8-15 |



|  |  |  |
| :---: | :---: | :---: |
| General Studies <br> Revise graduation requirements Bachelor of Arts in Social Sciences for General Studies - Personnel Psychology / Human Resources (WSU Vancouver only) | General Studies - Social Sciences Option: Personnel Psychology/Human Resources (Vancouver-only Option) (120 Hours) <br> First Year <br> First Term <br> Hours <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$ <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] | 8-15 |



|  |  |  |
| :---: | :---: | :---: |
| General Studies Revise graduation requirements Bachelor of Arts in Humanities for General Studies Religious Studies | General Studies - Religious Studies (120 Hours)(67 Hours) <br> First Year <br> First Term <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$ <br> ENGLISH 101 [WRTG] <br> FOR LANG Elective <br> Foreign Language ${ }^{2}$ <br> HISTORY 105 [ROOT] <br> Quantitative Reasoning [QUAN] <br> Electives <br> Second Term <br> Hours <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCH] <br> Communication [COMM] or Written Communication [WRTG] <br> Greative \& Professional Arts [ARTS] <br> FOR LANG Electives <br> Foreign Language ${ }^{2}$ | 8-15 |



|  | courses from: ANTH 330;-; ENGLISH 305, 306, 383, 385 FINE ART 201, 202; HISTORY 341, 423, 440, 441; HUMANITY 101, 198, 302[M], 3-40; PHIL 290, 310, 400 320, 322, 413, 420, 446; Soc 344. <br> 2. Non-Western Religions: HISTORY 273, PHIL 314[M [M], 407; six courses from: ANTH 303, 330; FINE AR 202, 302[M]; HISTORY 270, 275, 308, 370, 373, 374, 470, 472[M], 473; HUMANITY 350; SOC 344. <br> 3. Comparative Religions: HISTORY 273, 407, 445, PHIL [M], 315 [M]; five courses from: ANTH 303;; ENGLIS 306, 383, 385-483, 485; FINE ART 201, 202, 302[M]; HISTORY 308, 341, 370, 373, 374, 408, 440, 441, 470, [M], 473; HUMANITY 350; PH\& 3 40, SOC 344. | $\begin{aligned} & 35-485 ; \\ & 340, \\ & 315 \\ & \Gamma 201, \\ & 408, \\ & 314 \\ & H 305 \\ & 472 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: |
| History Revise graduation requirements for Bachelor of Arts in History - General Option | History - General Option (120 Hours) |  | 8-15 |
|  | First Year |  |  |
|  | First Term | Hours |  |
|  | Creative \& Professional Arts [ARTS] | $\underline{3}$ |  |
|  | ENGLISH 101 [WRTG] | 3 |  |
|  | HISTORY 105 [ROOT] | 3 |  |
|  | Humanities [HUM] | 3 |  |
|  | Quantitative Reasoning [QUAN] | 3 or 4 |  |
|  | Electives | 4 |  |
|  | Second Term | Hours |  |
|  | Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] | 4 |  |
|  | Communication [COMM] or Written Communication [WRTG] | 3 |  |
|  | Diversity [DIVR] | 3 |  |
|  | HISTORY 105 [ROOT] | $\underline{3}$ |  |
|  | Social Sciences [SSCI] | 3 |  |
|  | Electives | 3 |  |
|  | Second Year |  |  |
|  | First Term | Hours |  |
|  | 100-200-level HISTORY Electives ${ }^{1}$ | 6 |  |
|  | Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{2}$ | 4 |  |
|  | Creative \& Professional Arts [ARTS], Humanities [HUM], or Social Sciences [SSCI] | 3 |  |
|  | Physical Sciences [PSCI] with lab or SCIENCE 102 [SCH] | 4 |  |
|  | Electives | 3 |  |
|  | Second Term | Hours |  |

100-200-level Degree Program Course ${ }^{23}$ ..... 3
100-200-level HISTORY Electives ${ }^{1}$ ..... 6
Creative \& Professional Arts [ARTS] ..... 3
Physical Sciences [PSCI] with lab or SCIENCE 102 [SCI] ${ }^{2}$ ..... 4
Foreign Language, if necessary, or Elective ..... 3 or 4
Complete Writing Portfolio
Third Year
First Term Hours
100-200-level Degree Program Course ${ }^{23}$ ..... 3
300-400-level HISTORY Electives ${ }^{1}$ ..... 6
Foreign Language, if necessary, or Elective ..... 3 or 4
HISTORY 300 or HISTORY Elective(any level) ${ }^{1}$ ..... 3
Second Term Hours
300-400-level Degree Program Course ${ }^{23}$ ..... 3
300-400-level Electives ..... 6
300-400-level HISTORY Elective ${ }^{1}$ ..... 3
HISTORY 300[M] ..... 3
Fourth Year
First Term Hours
300-400-level Degree Program Course ${ }^{23}$ ..... 3
300-400-level Electives ..... 6
300-400-level HISTORY Electives ${ }^{1}$ ..... 6
Second Term ..... Hours
300-400-level Electives ..... 6
HISTORY 436 [CAPS] or 495 [CAPS] ..... 3
HISTORY 469[M] ..... 3
Imtegrative Gapstone [CAPS] ..... 3

## Footnotes

${ }^{1}$ History Electives must include 6 hours US history (HISTORY 110, 111, 150, 201, 205, 216, 280, 298, 308, 313, 314, 320 [M], 321, 322, 390, 398, 409, 410, 411, 412, 413 [M], 414, 415, 416, 417, 418, 419, 421, 422, 423, 427 [M], 486, and 496), 6 hours European history (HISTORY 101, 102, 340, 341, 342, 350, 381, 382, 386, 440, 441, 444, 445, 447, 449, 450 [M], 453, 454, 455, 459, 462, 463 [M], 467, 468, and 489 [M]), and 9 hours NonWestern/Global history (HISTORY 230, 231, 270, 271, 272, 273, 274, 275, 306, 331, 335, 337, 370, 373, 374, 387, 388, 425, 430 [M], 432, 433, 434, 435, 436, 439, 466, 472 [M], 473, 474, 475, 476 [M], 477 [M], 483, 491, 492, and 495).
$\underline{2}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester.
${ }^{23}$ Courses in the same or in related disciplines with the advisor's approval; students are encouraged to explore, in consultation with their advisor, a double-major or strong minor in a complementary subject field.

| History Revise graduation requirements for Bachelor of Arts in History - Pre-Law Option | History - Pre-Law Option (120 Hours) |  | 8-15 |
| :---: | :---: | :---: | :---: |
|  | First Year |  |  |
|  | First Term | Hours |  |
|  | Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$ | $\underline{4}$ |  |
|  | COM 102 [COMM] | $\underline{3}$ |  |
|  | ENGLISH 101 [WRTG] | 3 |  |
|  | HISTORY 105 [ROOT] | 3 |  |
|  | Humanities [HUM] | 3 |  |
|  | Quantitative Reasoning [QUAN] | 3 or 4 |  |
|  | Electives | 4 |  |
|  | Second Term | Hours |  |
|  | Biological Sciences [BSCI] with lab or SCIENCE 101 [SCH | 4 |  |
|  | GOM 102 [COMM | 3 |  |
|  | Creative \& Professional Arts [ARTS] | $\underline{3}$ |  |
|  | Diversity [DIVR] | 3 |  |
|  | HISTORY 105 [ROOT] | $\underline{3}$ |  |
|  | Physical Sciences [PSCI] with lab or SCIENCE 102 [SCI] ${ }^{1}$ | 4 |  |
|  | PSYCH 105 [SSCI] | $\underline{3}$ |  |
|  | Pre Law-Option ${ }^{1}$ | 3 |  |
|  | Electives | 3 |  |
|  | Second Year |  |  |
|  | First Term | Hours |  |
|  | 100-200-level Hist HISTORY Electives ${ }^{2}$ | 6 |  |
|  | ANTH 101 | $\underline{3}$ |  |
|  | Physical Sciences [PSCI] with lab or SCIENCE 102 [SCH] | 4 |  |
|  | Pre-Law Option ${ }^{1}$ | 6 |  |
|  | SOC 101 [SSCI] | $\underline{3}$ |  |
|  | Electives | 4 |  |
|  | Second Term | Hours |  |
|  | 100-200-level HISTORY Electives ${ }^{2}$ | 6 |  |
|  | Foreign Language, if necessary, or Elective | 3 or 4 |  |
|  | Pre-Law Option ${ }^{13}$ | 6 |  |
|  | Complete Writing Portfolio |  |  |
|  | Third Year |  |  |
|  | First Term | Hours |  |
|  | 300-400-level HISTORY Elective ${ }^{34}$ | 3 |  |


endorsement.

To certify in Social Studies, a student must have earned at least a 2.50 cumulative GPA.

A grade of C or better is required in all history courses used to fulfill the requirements for this degree.

The social studies education major consists of 63 hours: lower-division ( 30 hours) to requirements includes U.S. History, European History, Global History, Geography, and Political ScienceHISTORY 101, 102, 110, 111; one course from two of the following four sets: HISTORY 230 231, 270, 271, 272 273, 275; one from AANTH 101, 198, 203, 260; EGONS 102; POL S 101; SOC 101. Upper-division (30 hours) requirements include: 15 hours of history, to include HISTORY 422, one European, one non-western/global, and one American/U.S. course; 15 hours of social sciences, to include ene approved courses from Economics, Geography, and Political Science ECONS 320, 327, 416, 427,430 [T]; one from geography (ANTH 309, HISTORY 319, 495); ene from POL S $300,316,427,450,455$ or CRM J 320; and 6 additional hours of approved Anthropology, Psychology, and Sociology courses from ANTH 307, 316, 320, 330, 331, 350; PSYCH $310,324,361,470$; SOC $320,351,384,430$; HISTORY 480 is also required. An approved seminar is also required but may double-count with the upper-division courses above.

As social studies is an interdisciplinary major, 21 credits may double count to fulfill UCORE and major requirements.

Students must have one year of a foreign language at the college level or two years at the high school level.

## First Year

First Term
Hours
Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$
Creative \& Professional Arts [ARTS] $\underline{3}$
ENGLISH 101 [WRTG] 3
HISTORY 1013
HISTORY 105 [ROOT] 3
Quantitative Reasoning [QUAN] 3 or 4
Electives 3
Second Term Hours
ANTH 101 [DIVR] or 203 [DIVR] 3
Biological Sciences [BSCI] with lab or SCIENCE 101 [SCH] 4
Greative \& Professional Arts [ARTS] 3
HISTORY 1023



|  |  |  |
| :---: | :---: | :---: |
| Integrated Plant Sciences | Agricultural Biotechnology (120 Hours) | 8-15 |


| Revise graduation requirements for Bachelor of Science in Integrated Plant Sciences Agriculture Biotechnology | Second Year <br> First Term <br> BIOLOGY 106 [BSCI] or 107 [BSCI] <br> COMST 102 [COMM] or H D 205 [COMM] <br> ENTOM 343 [M] <br> STAT 212 <br> Electives <br> Third Year <br> First Term <br> BIOLOGY 420 <br> CHEM 345 <br> ENTOM 343 [M] <br> MBIOS 301 <br> PL P 429 <br> Electives <br> Second Term <br> CROP_SCI 445 [M] <br> CROP_SCI 495 <br> Diversity [DIVR] <br> MBIOS 303 <br> MBIOS 305 <br> Fourth Year <br> Second Term <br> 400-500-level Seminar in CAHNRS ${ }^{1}$ <br> HORT $416^{42}$ <br> Integrative Capstone [CAPS] <br> IPM 452 <br> MBIOS 401 <br> Footnotes <br> 1 Seminar in CAHNRS (1 credit): AGTM 451, CROP SCI ENOL 409, or as approved by advisor. <br> 42 CROP SCI 411 [M] can be taken in the fall as an alternativ | Hours <br> 3 or 4 3 <br> Hours <br> Hours <br> Hours |  |
| :---: | :---: | :---: | :---: |
| Mathematics Revise graduation requirements for Bachelor of Science in Mathematics Actuarial Science Option, Applied | Mathematics (120 Hours) <br> Mathematics Major Core Requirements In addition to the UCORE requirements and Sciences requirements, a mathematics major 171, 172 (or 182), 220 (or 230), 273 (or 283) 443), 398, 401, 402, 420, 421, thirteen core c | and <br> MATH <br> 0 (or <br> mum of | 8-15 |


| Mathematics Option, and Theoretical Mathematics Option. | four additional 300-400 level MATH courses specified by a chosen option, CPT S 121 or 251, PHYSICS 201, and ENGLISH 402 (or 403 for non mative English speakers). These core courses are required for all mathematics major options, except the Secondary Mathematics Feaching Option, where CPT S 121 or 251, MATH 402 and 420 are Hot required. MATH 216, 303, and 330 are required; ENGLISH 201 (or 301 ) is required instead of 402; and MATH 320 may be substituted for 421. Options include: Actuarial Science, Applied Mathematics, Theoretical Mathematics. Courses required for the major may not be taken pass/fail, and a 2.0 minimum GPA is required. <br> Certification Requirements <br> 1. Applications for certification are accepted at any time during fall and spring semesters. Decisions are made within ten working days of receipt of application. Application forms are available in the Mathematics Department office. <br> 2. Applications are evaluated, and certification decided, by a faculty committee. <br> 3. Applicants must have an overall gpaGPA of at least 2.0. <br> 4. The mathematics core consists of MATH 171, 172, and 220. This core These courses (or its-their equivalent for transfer students) must be completed before application. <br> 5. Students with at least a 2.5 gpaGPA in the mathematics core will be certified automatically. Those with less than a 2.0 gmzGPA in the mathematics core will normally not be certified. Others will be considered on a case-by-case basis. <br> 6. Appeals on certification decisions are considered by the department chairperson. <br> 7. Students who are denied certification may reapply after completing at least 12 more semester hours, whereupon decisions are based on grades in mathematics, science, and computer science courses; cumulative grade point average and grade patterns; and a personal interview. <br> 8. Certified students whose cumulative gpaGPA or gpaGPA in mathematics MATH courses numbered 171 and above falls below 2.0 for two consecutive semesters, or who are academically deficient, are subject to decertification. <br> 9. Applications for recertification are handled in the same manner as certification applications for those previously denied. <br> THHRD AND FORTH YEAR MATHEMATICS OPTIONS REQUIREMENTS <br> Mathematics majors must complete the courses specified by one of the following options:- <br> Actuarial Science Option- <br> Required Courses: Math 360, 416, 423, 443, and one of 456 or 490 <br> (Introduction to Stochastic Calculus. Suggested Courses: ACCTG 230 <br> and 231, ECONS 101 and 102, FIN 325 and 350, and MATH 448 <br> provide additional background for actuarial exams. MATH 499 (1-2 <br> eredits) provides additional preparation for the first two acturrial exams. Note: A minor in Business Administration is required if you plan to take FIN 325 and 350 . |
| :---: | :---: |

four additional 300-400 level MATH courses specified by a chosen option, CPT S 121 or 251, PHYSICS 201, and ENGLISH 402 (or 403
all mathematics major options, except the Secondary Mathematics Teaching Option, where CPT S 121 or 251, MATH 402 and 420 are not required. MATH 216, 303, and 330 are required; ENGLISH 201 (or 301 ) is required instead of 402; and MATH 320 may be substituted for 421. Options include: Actuarial Science, Applied Mathematics, Theoretical Mathematics. Courses required for the major may not be taken pass/fail, and a 2.0 minimum GPA is required.

## Certication Requirements

spring semesters. Decisions are made within ten working days of receipt of application. Application forms are available in the Mathematics Department office.
2. Applications are evaluated, and certification decided, by a faculty committee.
3. Applicants must have an overall gpaGPA of at least 2.0.
4. The mathematics core consists of MATH 171, 172, and 220. This core These courses (or its-their equivalent for transfer students) must be completed before application.
5. Students with at least a 2.5 gpaGPA in the mathematics core will be certified automatically. Those with less than a 2.0 gpaGPA in the mathematics core will normally not be certified. Others will be considered on a case-by-case basis.
6. Appeals on certification decisions are considered by the department chairperson.
7. Students who are denied certification may reapply after completing at least 12 more semester hours, whereupon decisions are based on grades in mathematics, science, and computer science courses; cumulative grade point average and grade patterns; and a personal interview.
8. Certified students whose cumulative gpaGPA or gpaGPA in mathematics MATH courses numbered 171 and above falls below 2.0 for two consecutive semesters, or who are academically deficient, are subject to decertification.
9. Applications for recertification are handled in the same manner as certification applications for those previously denied.
THIRD AND FORTH YEAR MATHEMATIGS OPTIONS REQUIREMENTS
Mathematics majors must complete the courses specified by one of the following options:
Actuarial Science Option
Required Courses: Math 360, 416, 423, 443, and one of 456 or 490
(Introduction to Stochastic Calculus. Suggested Courses: ACCTG 230 and 231, ECONS 101 and 102, FIN 325 and 350, and MATH 448 provide additional background for actuarial exams. MATH 499 (1-2 eredits) provides additional preparation for the first two acturrial plan to take FIN 325 and 350.
Applied Mathematics OptionRequired Courses: In addition to the core requirements, at least fourupper-division courses in mathematics that form a coherent programwithin the Applied Mathematics Option. These courses must beapproved by your advisor.
Theoretical Mathematics Option
Required Courses: Four of: MATH 302, 303, 325, 415, 441 and 453.
Secondary Mathematics Teaching Option
See separate schedule of studies below.
First Year
First Term ..... Hours
Biological Sciences [BSCI] with lab ..... 4
Creative \& Professional Arts [ARTS] ..... $\underline{3}$
ENGLISH 101 [WRTG] ..... 3
HSTORY 105 [ROOT] ..... 3
MATH 171 [QUAN] ..... 4
Second Term ..... Hours
CPT S 121-or 251 ..... 3 or 4
Greative \& Professional Arts [ARTS] ..... 3
HISTORY 105 [ROOT] ..... $\underline{3}$
MATH 172 ..... 4
MATH 220-or 230 ..... 2-or 3
Social Sciences [SSCI] ${ }^{1}$ ..... 3
Second Year
First Term Hours
Creative \& Professional Arts [ARTS], Humanities [HUM], or ..... 3
Social Sciences [SSCH]
Humanities [HUM] ..... $\underline{3}$
MATH 273 ..... 2
MATH 300 [M] ..... 3
MATH 301 ..... $\underline{3}$
PHYSICS 201 [PSCI] ..... 4
Foreign Language or Electives ${ }^{2}$ ..... 34
Second Term Hours
Creative \& Professional Arts [ARTS], Humanities [HUM], or ..... $\underline{3}$
Social Sciences [SSCI] ${ }^{1}$
Social Sciences [SSCI] ${ }^{1}$
Diversity [DIVR] ..... 3
MATH 301 ..... 3
MATH 315 ..... 3
MATH 360 ..... 3
MATH 398 ..... 1


Revise graduation requirements for
Bachelor of Science in
Mathematics Secondary Teaching Option with
Certification

Certification (134 $\mathbf{1 2 4}$ Hours)
Mathematics Major Core Requirements
In addition to the UCORE requirements and the College of Arts and Sciences requirements, a mathematies major is required to take MATH 171, 172 (or 182), 220 (or 230), 273 (or 283), 300, 301, 315, 360 (or 443), 398, 401, 402, 420, 421, four additional 300-400 level MATH courses specified by a chosen option, CPT S 121 or 251, PHYSICS 201, and ENGLISH 402 (or 403 or non- native English speakers). These core courses are required for all mathematies major options, except the Secondary Mathematics Teaching Option, where CPT S 121 or 251, MATH 402 and 420 are not required, MATH 216, 330 , and 403 are required, ENGLISH 201 (or 301) is required instead of 402, and MATH 320 may be substituted for 421 . Courses required for the major may not be taken pass/fail, and a 2.0 minimum GPA is required.

Certification Requirements

1. Applications for certification are accepted at any time during fall and spring semesters. Decisions are made within ten working days of receipt of application. Application forms are available in the Mathematics Department office.
2. Applications are evaluated, and certification decided, by a faculty committee.
3. Applicants must have an overall GPA of at least 2.0.
4. The mathematics core consists of MATH 171, 172, and 220. This core These courses (or their equivalent for transfer students) must be completed before application.
5. Students with at least a 2.5 GPA in the mathematics core will be certified automatically. Those with less than a 2.0 GPA in the mathematics core will normally not be certified. Others will be considered on a case-by-case basis.
6. Appeals on certification decisions are considered by the department chairperson.
7. Students who are denied certification may reapply after completing at least 12 more semester hours, whereupon decisions are based on grades in mathematics, science, and computer science courses; cumulative grade point average and grade patterns; and a personal interview.
8. Certified students whose cumulative GPA or GPA in MATH courses numbered 171 and above falls below 2.0 for two consecutive semesters, or who are academically deficient, are subject to decertification.
9. Applications for recertification are handled in the same manner as certification applications for those previously denied.

## SEGONDARY MATHEMATIGS TEACHING OPTION WITH

 GERTIFIGATIONRequired Courses: MATH 216, 330, 403, 431, 432 and two additional 3-credit 300-400 level Math classes. Mathematics major core courses GPT S 121 or 251, Math 402 and 420 are not required. Students must take ENGLISH 201 (or 301) instead of ENGLISH 402. Students may
substitute MATH 320 for 421.
TCH LRN Requirements: Secondary education teacher certification
also requires PSYCH 105, ED PSYCH 468, TCH LRN 301, 317, 415,
464, 465, 466, 467, 469 and 470 . A a consultation with a TCH LRN
advisor must be consulted for approval and sequencing of TCH LRN
courses.
First Year
First Term Hours
Biological Sciences [BSCI] with lab 4
ENGLISH 101 [WRTG] 3
HISTORY 105 [ROOT] 3
Humanities [HUM] $\underline{3}$
MATH 171 [QUAN] 4
Second Term
Hours
Greative \& Professional Arts [ARTS] 3
HISTORY 105 [ROOT] $\underline{3}$
Humanities [HUM] 3
MATH 1724
MATH 220-or 230 2-or 3
PSYCH 105 [SSCI] 3
Foreign Language, if needed $\quad \underline{0-4}$
Second Year
First Term Hours
Greative \& Professional Arts [ARTS], Humanities [HUM], or 3
Social Sciences [SSCH]
ENGLISH 201 [WRTG] or 301 [WRTG] 3
MATH $216 \quad$ z3
MATH 273 른
MATH 300 [M] 3
PHYSICS 201 [PSCI] 4
Foreign Language, if needed $\quad \underline{0-4}$
Second Term Hours
Biological or Physical Sciences Elective 4
Creative \& Professional Arts [ARTS] $\underline{3}$
Diversity [DIVR] 3
MATH 273 3
MATH 3013
MATH 315 ́ㅗ
MATH 398 1


|  | Fifth Year <br> First Term <br> Hours <br> TCH LRN 415 (Student Teaching) |  |
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| Mathematics <br> Revise graduation requirements for Bachelor of Science in Mathematics Secondary Teaching Option Without Certification | Secondary Mathematics Teaching Option without Certification (120 Hours) <br> Required Courses: MATH 216, 303, 330, 431, 432 and two additional 3-credit 300-400 level Math classes. Mathematics major core courses GPT S 121 or 251, Math MATH 402 and 420 are not required. Students mest take ENGLISH 201 (or 301) instead of ENGLISH 402. Students may substitute MATH 320 for 421. <br> Mathematics Major Core Requirements <br> Courses required for the major may not be taken pass/fail, and a 2.0 minimum GPA is required. <br> Certification Requirements <br> 1. Applications for certification are accepted at any time during fall and spring semesters. Decisions are made within ten working days of receipt of application. Application forms are available in the Mathematics Department office. <br> 2. Applications are evaluated, and certification decided, by a faculty committee. <br> 3. Applicants must have an overall GPA of at least 2.0. <br> 4. The mathematics core consists of MATH 171, 172, and 220. This eøre These courses (or their equivalent for transfer students) must be completed before application. <br> 5. Students with at least a 2.5 GPA in the mathematics core will be certified automatically. Those with less than a 2.0 GPA in the mathematics core will normally not be certified. Others will be considered on a case-by-case basis. <br> 6. Appeals on certification decisions are considered by the department chairperson. <br> 7. Students who are denied certification may reapply after completing at least 12 more semester hours, whereupon decisions are based on grades in mathematics, science, and computer science courses; cumulative grade point average and grade patterns; and a personal interview. <br> 8. Certified students whose cumulative GPA or GPA in MATH courses numbered 171 and above falls below 2.0 for two consecutive semesters, or who are academically deficient, are subject to decertification. <br> 9. Applications for recertification are handled in the same manner as certification applications for those previously denied. <br> Recommended Courses: Four additional courses form the following MATH 302, 325, 340, 351, 364, 415, 420, and 441. <br> TCH LRN requirements: Since this option is without certification, | 8-15 |





|  | Fourth Year <br> Second Term <br> Hours <br> ENGLISH 402 [WRTG][M] <br> ME 406 [M] <br> ME 416 [CAPS] <br> Technical Elective ${ }^{1}$ <br> Complete Fundamentals of Engineering Exam <br> Footnotes <br> ${ }^{1}$ Technical Elective: ME 431, 436, 439, or as approved by advisor. Any 400-500-level ME or MSE course not listed as a major requirement (MSE 440 excluded). |  |
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| Music <br> Revise graduation requirements for Bachelor of Music with Elective Studies in Education. | Bachelor of Music with Elective Studies in Education (120 126 Hours) | 8-15 |



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| Music Revise graduation requirements for Bachelor of Arts in Music Education - | Music Education - Instrumental/General Endorsement Option (136 139 Hours) <br> Third Year | 8-15 |



|  | Footnotes <br> ${ }^{1}$ Class piano credits not required in degree. <br> 2 Fall only. <br> ${ }^{3}$ Four semesters of instrumental ensemble required from MUS 434-438 or 440-444. 441 and 444 <br> ${ }^{4}$ Spring only. <br> 5 MUS 359 fulfills the College of Arts and Sciences additional 3-unit requirement. <br> ${ }^{65}$ Two lab-sciences required to fulfill the College of Arts and Sciences Requirement. To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{76}$ Fall, alternate years only. <br> ${ }^{87}$ Spring, alternate years only. |  |
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| Music <br> Revise graduation requirements for Bachelor of Arts in Music Education Choral/General Endorsement Option. | Music Education - Choral/General Endorsement Option ( $\mathbf{1 3 5} \underline{138}$ Hours) <br> First Year <br> First Term <br> Applied MUS (300-level) <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{1}$ <br> Greative \& Professional Arts [ARTS] <br> HISTORY 105 [ROOT] <br> MUS $181^{12}$ <br> MUS 251 ${ }^{23}$ <br> MUS 252 ${ }^{23}$ <br> MUS Ensemble ${ }^{34}$ <br> PSYCH 105 [SSCI] <br> Quantitative Reasoning [QUAN] <br> Second Term <br> Applied MUS (300-level) <br> ENGLISH 101 [WRTG] <br> MUS 164 <br> MUS $182^{12}$ <br> MUS 190 <br> MUS 253 ${ }^{45}$ <br> MUS 254 ${ }^{45}$ <br> MUS Ensemble ${ }^{34}$ <br> Physical Sciences [PSCI] with lab or SCIENCE 102 [SCI] ${ }^{1}$ <br> Quantitative Reasoning [QUAN] <br> Second Year | 8-15 |



|  | Fourth Year <br> First Term <br> Hours <br> Applied MUS (400-level) <br> Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{8}$ <br> Creative \& Professional Arts [ARTS] <br> MUS 428 <br> MUS 455 <br> MUS $480^{6}$ <br> TCH LRN-470 <br> Second Term <br> Diversity [DIVR] <br> ED PSYCH 468 <br> Integrative Capstone [CAPS] <br> MUS 282 <br> TCH LRN 467 <br> TCH LRN 469 <br> TCH LRN 470 <br> Fifth Year <br> First Term <br> MUS 497 <br> TCH LRN 415 <br> Footnotes <br> $\underline{1}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semesters and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{42}$ Class piano credits not required in degree. <br> ${ }^{23}$ Fall only. <br> 34 A minimum of 4 semesters of vocal ensembles required. <br> 45 Spring only. <br> ${ }^{5}$ MUS 359 fulfills the College of Arts and Sciences additional 3-unit requirement. <br> ${ }^{6}$ Fall, alternate years only. <br> 7 Spring, alternate years only. <br> ${ }^{8}$ Two lab sciences required to fulfill the College of Arts and Sciences Requirement. |  |
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| Music Revise graduation requirements for Bachelor of Arts in Music | Bachelor of Arts in Music (120 Hours) <br> This four-year program is designed to meet the needs of students wishing a broad liberal arts background with a major in music. Of the total 120 credits required for a degree in this program, 50 credits are in music and 70 credits are devoted to courses outside music, including the University Common Requirements (UCOREs). Non-music courses other than those used for the UCOREs must be at the 200-level or above. 40 credits of the 120 required for the degree must be in 300- | 8-15 |


| 400-level. Music credits beyond the required 50 credits in music add to the number of credits required in the degree. Other requirements include: C or better in all music courses; 2.5 music average; senior qualifying exam; piano proficiency exam or grade of C or better in MUS 182. |  |
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| First Year |  |
| First Term | Hours |
| Applied MUS (300-level) ${ }^{1}$ | 2 |
| ENGLISH 101 [WRTG] | 3 |
| MUS 164 | 1 |
| MUS 181 ${ }^{12}$ | 0 or 1 |
| MUS 251 ${ }^{23}$ | 3 |
| MUS 252 ${ }^{\underline{23}}$ | 1 |
| MUS Ensemble ${ }^{34}$ | 1 |
| Quantitative Reasoning [QUAN] | $\underline{3}$ |
| Physical Sciences [PSCI] with lab or SCIENCE 102 [SCI] ${ }^{4}$ | 4 |
| Second Term | Hours |
| Applied MUS (300-level) ${ }^{1}$ | 2 |
| Creative \& Professional Arts [ARTS] | $\underline{3}$ |
| Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{4}$ | 4 |
| HISTORY 105 [ROOT] | 3 |
| MUS $182{ }^{1}$ | 0 or 1 |
| MUS $253{ }^{5}$ | 3 |
| MUS $254{ }^{5}$ | 1 |
| MUS Ensemble ${ }^{3}$ | 1 |
| Second Year |  |
| First Term | Hours |
| Applied MUS (300-level) ${ }^{1}$ | 2 |
| Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{6}$ | $\underline{4}$ |
| Communication [COMM] or Written Communication [WRTG] | 3 |
| MUS 351 ${ }^{\underline{23}}$ | 3 |
| MUS 352 ${ }^{\underline{23}}$ | 1 |
| MUS Ensemble ${ }^{34}$ | 1 |
| Quantitative Reasoning [QUAN] | 3 |
| Social Sciences [SSCI] | 3 |
| Second Term | Hours |
| Applied MUS (300-level) ${ }^{1}$ | 2 |
| Greative \& Professional Arts [ARTS] | 3 |
| MUS $353^{5}$ | 3 |


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| Music <br> Revise graduation | Music Composition Degree (120 Hours) | 8-15 |

requirements for Bachelor of Arts in Music - Music

## Composition

First Year
First Term Hours

Applied MUS (200-level) ${ }^{\underline{1}} \quad 2$
ENGLISH 101 [WRTG] 3
HISTORY 105 [ROOT] 3
Humanities [HUM] $\underline{3}$
MUS 164 1
MUS $181^{12} \quad 0$ or 1
MUS $251^{23}$ 互 3
MUS 252 ${ }^{23}$ 1
MUS Ensemble ${ }^{34} 1$
Foreign Language, if needed $\quad \underline{0-4}$
Second Term Hours
Applied MUS (300-level) ${ }^{\underline{1}} 2$
Communication [COMM] or Written Commenication 3
[WRTG]
HISTORY 105 [ROOT] $\underline{3}$
Humanities [HUM] 3
MUS $182^{\underline{12}} \quad 0$ or 1
MUS $253{ }^{45}$ 画 3
MUS 254 ${ }^{45}$ 1
MUS Ensemble ${ }^{34} \quad 1$
Quantitative Reasoning [QUAN] $\underline{3}$
Foreign Language, if needed $\quad \underline{0-4}$
Second Year
First Term
Hours
Applied MUS (300-level) ${ }^{1}$
2
Biological Sciences [BSCI] with lab or SCIENCE 101 [SCI] ${ }^{56} 4$
Communication [COMM] or Written Communication $\underline{3}$
[WRTG]
MUS 256
MUS 281 ${ }^{12} \quad 0$ or 1
MUS 351 ${ }^{23}$
MUS 352 ${ }^{23}$
MUS Ensemble ${ }^{34} \quad 1$
Quantitative Reasoning [QUAN] 3
Piano Proficiency
Second Term Hours
Applied MUS (300-level) ${ }^{1}$


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| Music Revise graduation requirements for Bachelor of Arts in Music for Music Performance - Brass, Percussion, Strings, Winds Option | Music Performance - Brass, Percussion, Strings, Winds Option (1202 Hours) <br> Requirements include: junior and senior qualifying exams; piano proficiency exam; 2.5 GPA or better average in all music courses; C or better in all music courses; junior and senior recitals. | 8-15 |



|  | Junior Recital <br> Fourth Year <br> First Term <br> Hours <br> Applied MUS (300 or 400-level) <br> MUS $455^{3}$ <br> MUS $465^{8}$ <br> MUS $482^{3}$ <br> 300-400-level MUS Electives <br> MUS Ensemble ${ }^{4}$ <br> Foreign Language, if needed <br> Upper Division Examination <br> Second Term <br> Hours <br> Applied MUS (400-level) <br> Integrative Capstone [CAPS] <br> 300-400-level MUS Electives <br> Mus MUS Ensemble ${ }^{4}$ <br> Foreign Language, if needed <br> Electives <br> Senior Recital <br> Footnotes <br> 1 Two lab sciences required to fulfill the College of Arts and Sciences Requirement. Applied MUS courses are: MUS 304-318, 404-418. <br> 2 Class piano credits not required. <br> 3 Fall only. <br> 4 Chosen from MUS 428=, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 444. <br> 5 Spring only. <br> ${ }^{6}$ MUS 359 fulfills the College of Arts and Sciences additional 3-unit requirement. <br> ${ }^{76}$ Two credits of pedagogy are_required in respective area: string (487), wind/percussion (493), or brass (494). <br> 7 To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semesters and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> 8 Fall, alternate years only. |  |
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| Music <br> Revise graduation requirements for Bachelor of Arts in Music for Music Performance Keyboard Option | Music Performance - Keyboard Option (120 Hours) <br> Requirements include: Accompany a junior, senior, or graduate recital; piano proficiency exam; junior and senior qualifying exams; junior recital; senior recital; 2.5 average GPA or better in all music courses; and $C$ or better in all music courses. <br> First Year <br> First Term <br> Applied MUS 301 or 302 | 8-15 |




|  | 4 To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> ${ }^{75}$ Fall, alternate years only. |  |
| :---: | :---: | :---: |
| Music <br> Revise graduation requirements for Bachelor of Arts in Music for Music Performance Percussion, Saxophone, String Bass, Trumpet, Guitar, and Keyboard (Jazz Studies) | Music Performance - Percussion, Saxophone, String Bass, Trumpet, Guitar, and Keyboard (Jazz Studies) (120 Hours) <br> This option with an emphasis in jazz is available to students whose major instruments are percussion, saxophone, string bass, trumpet, guitar, or keyboard. <br> Requirements include: junior and senior qualifying exams; piano proficiency exam; 2.5 average in all music courses; C or better in all music courses; junior and senior recitals. | 8-15 |



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| :---: | :---: | :---: |
| Music <br> Revise graduation requirements for Bachelor of Arts in Music for Music Performance - Voice Option | Music Performance - Voice Option (120 Hours) <br> Requirements include: junior and senior qualifying exams; piano proficiency exam; 2.5 GPA or better average in all music courses; C or better in all music courses; junior and senior recitals. | 8-15 |




|  | ${ }^{7}$ MUS 359 fulfills the College of Arts and Sciences additional 3 unit requirement. <br> ${ }^{86}$ Spring, alternate years only. |  |
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| Nutrition and <br> Exercise Physiology <br> Revise graduation requirements for Bachelor of Science in Nutrition and Exercise Physiology | Bachelor of Science in Nutrition and Exercise Physiology (120 Hours) <br> First Year <br> First Term <br> Hours <br> CHEM 101 [PSCI] or 105 [PSCI] <br> Creative \& Professional Arts [ARTS] <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> MBIOS 101 [BSCI] <br> Second Term <br> BIOLOGY 102, 106, or 107 <br> CHEM 102 or 106 <br> Greative \& Professional Arts [ARTS] <br> HISTORY 105 [ROOT] <br> PSYCH 105 [SSCH] <br> Elective <br> Second Year <br> First Term <br> Hours <br> BIOLOGY 251 <br> Diversity [DIVR] <br> PHIL 103 [HUM] or 365 [HUM] <br> STAT 205 [QUAN] <br> Second Term <br> BIOLOGY 233 <br> BIOLOGY 333 <br> COM 102 [COMM] <br> KINES 262 or BIOLOGY 315 <br> PSYCH 105 [SSCI] <br> Elective <br> Complete Writing Portfolio | 8-15 |
| Pharmacy <br> Revise graduation requirements for Doctor of Pharmacy - Professional Curriculum | Professional Curriculum (130 134 Hours) <br> First Year <br> First Term <br> Hours | 8-15 |



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| Physics \& Astronomy <br> Revise graduation requirements for Bachelor of Science in Physics - Standard Option | Physics - Standard Option (1210Hours) <br> The program of courses below is appropriate for students who have had a good experience with calculus in high school and wish to start physics in the first semester at WSU (even though the student may be placed in MATH 171, if their high school grades for the year course were B or better they can follow this schedule of study). Students who have placed in MATH 172 can accelerate the math sequence. Student who have not had calculus in high school should defer Physics PHYSICS 201 (or 205) until they have completed MATH 171. Upon consultation with the departmental advisor, modifications can be made in the list of required courses to fit the needs of individual students. The schedule of studies below includes the additional lab credit required for graduation by the College of Arts and Sciences. <br> Certification Requirements <br> A student may certify as a physies Physics major after completing 30 credits (preferably including PHYSICS 201 and MATH 171) with a cumulative gpaGPA of 2.0 or better. <br> Graduation Requirements <br> A research experience is required of all students as a PHYSICS 499 project; however, to gain valuable work experience outside the university, students are strongly encouraged to participate in an | 8-15 |



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| Physics \& Astronomy <br> Revise graduation requirements for Bachelor of Science in Physics Astrophysics Option | Physics - Astrophysics Option (121 Hours) <br> The program of courses below is appropriate for students who have had a good experience with calculus in high school and wish to start physics in the first semester at WSU (even though the student may be placed in MATH 171, if their high school grades for the year course were B or better they can follow this schedule of study). Students who have placed in MATH 172 can accelerate the math sequence. Student who have not had calculus in high school should defer Physics PHYSICS 201 (or 205) until they have completed MATH 171. Upon | 8-15 |

consultation with the departmental advisor, modifications can be made in the list of required courses to fit the needs of individual students. The schedule of studies below includes the additional lab credit required for graduation by the College of Arts and Sciences.

## Certification Requirements

A student may certify as a physics Physics major after completing 30 credits (preferably including PHYSICS 201 and MATH 171) with a cumulative gpaGPA of 2.0 or better.

## Graduation Requirements

A research experience is required of all students as a PHYSICS 499 project; however, to gain valuable work experience outside the university, students are strongly encouraged to participate in an internship or research experience in industry or a government lab outside of WSU. The summer after the junior year is the most appropriate time for this experience. All students are required to submit an undergraduate thesis to a committee of two physics faculty members in the senior year. PHYSICS 490 will give credit for this effort. The student must earn a C (2.0) or better grade in each of the required physics courses.

## First Year

First Term
Hours
CHEM 105 [PSCI]
4
ENGLISH 101 [WRTG] 3
MATH 171 [QUAN] 4
PHYSICS 188 1
Social Sciences [SSCI] 3
Second Term
Hours
CHEM 106 or 1164
HISTORY 105 [ROOT] 3
MATH 1724
PHYSICS 201-or 205 4-5
Second Year
First Term Hours
Biological Sciences [BSCI] 3
MATH 2202
MATH 2732
PHYSICS 202-or 206 4-5
PHYSICS 303 3
Foreign Language, if needed $\quad \underline{0-4}$
Second Term Hours
ASTRONOM 390 1
Creative and Professional Arts [ARTS] 3


| Physics \& Astronomy <br> Revise requirements <br> Minor in Astronomy | Astronomy <br> An Astronomy minor requires The program in astronomy offers a 19- | $\mathbf{8 - 1 5}$ |
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| hour minor in astronomy consisting of ASTRONOM 345, 435, 436;; at |  |  |
| least two hours from of ASTRONOM 390,-490, or 499, PHYSICS 490, |  |  |
| and 499;; and at least 3 hours from GEOLOGY 103, ASTRONOM |  |  |$\quad$.




|  | Third Year <br> First Term <br> Hours <br> 300-400-level POL S Electives ${ }^{+2}$ <br> Minor Field Elective or Foreign Language, if applicable <br> 3 or 4 <br> POL S global courses- ${ }^{23}$ <br> Second Term <br> 300-400-level POL S Electives <br> Minor Field Elective or Foreign Language, if applicable Electives <br> Fourth Year <br> First Term <br> Integrative Capstone [CAPS] <br> Minor Field Elective, if applicable, or Elective <br> POL S 427 <br> 300-400-level Electives <br> Second Term <br> International Experience ${ }^{34}$ <br> 300-400-level Electives, including Minor Field, if applicable <br> Footnotes <br> ${ }^{1}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> 12 POL S electives may need to mest include [M] courses sufficient to provide stedent with two, if these have not been taken to fulfill other university requirements in the major. <br> ${ }^{233}$ Choose from POL S 305, 314, 405 [M], 418, 424 [M], 428, 429, 432 [M], 435, 447 [M], 472 [M], 474, 475, or 476 [M]. <br> ${ }^{34}$ International Experience: earn at least 3 credit hours while completing one of the following: a) Study abroad (POL S 276 or 277 at a WSU-approved program); b) International internship (POL S 497 approved by POL S advisor; either abroad or in U.S.based internship that includes global activities); c) Minor in foreign languages or Global Studies; or d) Military Science (MIL SCI 402 while enrolled in ROTC). |  |
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| Politics, Philosophy, and Public Affairs <br> Revise graduation requirements for Bachelor of Arts in Philosophy - General Option | Philosophy - General Option (120 Hours) <br> First Year <br> First Term <br> Hours <br> Creative \& Professional Arts [ARTS] <br> ENGLISH 101 [WRTG] <br> HISTORY 105 [ROOT] <br> PHIL 101 [HUM] or 103 [HUM] <br> Electives | 8-15 |



|  | 300-400-level Electives $\underline{3}$ <br> Second Term Hours <br> 300-400-level PHIL Electives ${ }^{ \pm 2}$ 3 <br> 300-400-level Electives 12 |  |
| :---: | :---: | :---: |
| Politics, Philosophy, and Public Affairs Revise requirements minor in Ethics | Ethics <br> The minor in ethics consists of 18 credit hours, of which at least 15 must be from ethics courses within the department of philosophy, such as PHIL 260, 360, 365, 370, 460 [M], 462, 470, and 472[M]. Three credit hours may, with approval of the department of philosophy, be from an ethics course in the student's major or in another department. Nine of the 18 hours must, in accordance with university policies, be in upper-division course work taken in residence at WSU or through WSU-approved education abroad or educational exchange courses. | 8-15 |
| Politics, Philosophy, and Public Affairs Revise requirements minor in Political Science. | Political Science <br> 18 semester hours of political science coursework is required for the minor, half of which must include 9 credits in be in 300-400-level courses. The courses may not be taken pass, fail. Students must successfully complete POL S 101, 102, and 103. At least 12 semester hours of political science must be earned at Washington State University. Three hours of POL S 497 or 499 may be applied to the minor. A minimum gpaGPA of 2.0 in the political science courses is required. | 8-15 |
| Sociology Revise graduation requirements for Bachelor of Arts in Sociology | Sociology (120 Hours)  <br> First Year  <br> First Term Hours <br> Creative \& Professional Arts [ARTS] $\underline{3}$ <br> ENGLISH 101 [WRTG] 3 <br> HISTORY 105 [ROOT] 3 <br> Quantitative Reasoning [QUAN] 3 | 8-15 |



|  | 300-400-level Related Field Electives ${ }^{2}$ <br> SOC 495 [CAPS] [M] or 496 [CAPS] [M] ${ }^{1}$ <br> 300-400-level Electives <br> Footnotes <br> ${ }^{1}$ To meet University and College of Arts and Sciences requirements, students must take a [BSCI] course with lab and [PSCI] course with lab or SCIENCE 101 and 102. SCIENCE 101 is offered Fall semester and is a prerequisite for SCIENCE 102. SCIENCE 102 is offered Spring semester. <br> $\underline{2}$ Approved Related Field Electives include: COM 101, 410, 440, 464, 470; COMSOC 230, 321, 421; COMSTRAT 312, 380; CPT S 401; ENVR SCI 101; I BUS 380; MGMT 301; MIL SCI 201, 202, 301, 302, 401, 402; MKTG 360; NATRS 312; and any AMER ST, ANTH, ASIA, CES, CRM J, ECONS, H D, HISTORY, HONORS, PHIL, POL S, PSYCH, and WOMEN ST courses. |  |
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| Teaching and <br> Learning <br> Revise graduation requirements for Bachelor of Arts in <br> Education - <br> Elementary <br> Education Teacher <br> Certificate | Elementary Education Teacher Certificate (121 $\underline{128}$ Hours) <br> Candidates for the undergraduate elementary education teacher certificate program will satisfy degree requirements of the Department of Teaching and Learning. The degree will be the Bachelor of Arts. The student should include the following course work within UCORE selections to satisfy prerequisite, degree, and admission to teacher preparation requirements. This course schedule does not include an add-on endorsement. <br> During the freshman year, students must qualify to enroll in MATH 251, pass the Music 388 competeney exam or take MUS 153, and begin the University Writing Portfolio, as students must receive a pass before taking TCH LRN 306. <br> First Year <br> First Term <br> BIOLOGY 106 [BSCI] or SCIENCE 101 [SCH ${ }^{1}$ <br> Gommenication [COMM] or Written Commenication <br> [WRTG] <br> ENGLISH 101 [WRTG] <br> H D 101 [SSCI] <br> MATH 251 prereq, if necessary, or Elective <br> MUS 153 [ARTS] or Creative \& Professional Arts [ARTS] <br> SCIENCE 101 [SCI] <br> Second Term <br> Hours <br> HISTORY 105 [ROOT] <br> HISTORY 110 [HUM] or 111 [HUM] <br> MATH $25 \pm 2$ [QUAN] <br> MUS 153 [ARTS] <br> SCIENCE 102 [SCI] <br> Social Science Elective | 8-15 |



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| Teaching and <br> Learning <br> Revise graduation requirements for <br> Bachelor of Arts in <br> Education - Specific <br> Subject Teacher <br> Certificate; <br> Remove Schedule of <br> Studies plan and <br> footnotes; <br> Retain and revise <br> Specific Subject Area <br> Requirements and <br> Add-On <br> Endorsements. | Specific Subject Teacher Certificate (141 Hours) <br> Candidates for specific subject certificates shall declare a major with the subject-matter department and meet the UCORE and degree requirements of that department. Students completing subject-specific endorsements will follow the Secondary Professional Education Core: PSYCH 105; ED PSYCH 468, TCH LRN 301, 317, 464, 465, 466, 467, 469, 470 and 415 unless admitted to the MIT program. <br> In addition to meeting requirements of the degree-granting department, the student must meet admission requirements and make formal application to the teacher preparation education program prior to enrolling in any professional education courses beyond TCH LRN 301 and 317. It is recommended that candidates begin professional education courses in the sophomore or junior year to meet sequencing requirements. Students should include the following courses within UCORE selections to fulfill prerequisite and admission to teacher preparation program requirements: ENGLISH 101 and one of the following: ENGLISH 201, 301, 302, or 402; PSYCH 105 . All courses taken for teacher certification must be completed with a C (2.0) or better. | 8-15 |




306, 307, 308, 407, 408; one from FOR LANG 101, 110, 120, 130, 220; two from SPANISH 310, 311, 320, 321, 350, 351, 361; two from SPANISH 450, 451, 452, 453; FOR LANG 440, 441.
Early Childhood Education (108 hours): COM 102 or H D 205; ENGLISH 198, 201, 301, or 302; three 3-4 credit UCORE sciences; H D 201, 202, or 101; 204, 302, 341, 342, 410, 446, 449, 482; SPEC ED 409; HISTORY 150 or AMER ST 216; MATH 251, 252; MUS 388; TCH LRN 301, 307, 321, 322, 352, 371, 385, 390, 402, 403, 405, 413, 415, 445, 483.
Earth and Space Science(67-70 hours): GEOLOGY 101 or 102 (102 preferred), 206, 210, 315, 340, 350, 499; MATH 140 or 171; PHYSICS 101, 102; CHEM 105, 106; BIOLOGY 106; ASTRONOM 345; ENVR SCI 174; one from HISTORY 381, 382, 483, SOC 430 or HONORS 410; PH S-SCIENCE 430; one from STAT 212, 412, or PSYCH 311; 6 credits hours 300-400-level (geology elective, geomorphology or oceanography recommended).
English Language Arts (42 hours): ENGLISH 301 or 302; one from HUM 101, 103, 198, 302, 303, 304, 335, 350, 410 or 450; three from ENGLISH 370, 371, 372, 373; one from ENGLISH 205, 305, 306; ENGLISH 326, 325, 324, 323; 12 hours English or Humanities electives ( 3 hours must include an advisor approved writer of color (łass). ENGLISH 368, 371, 372, 470, 472, 480, 481, 482; one from ENGLISH 332 (with advisor approval), 338 (with advisor approval), 366, 370, 373, 419, 483, 484, 485, 486, 487, 488, 489; HUMANITY 303, 304, 335, 338, 350, 410, 450; ENGLISH 305 or 306; one from ENGLISH 309, 311 314, 315, 317, 321, 322, 332 (with advisor approval), 338 (with advisor approval), 341, 345, 409; ENGLISH 323, 324, 325, 326; nine credits of ENGLISH or HUMANITY electives, with 3 credits of 100-200-level electives allowed except for transfer students who will be allowed 9 of 100-200-level electives.
Family and Consumer Sciences(58-59 hours): AG ED 440; two from AMDT 210, 211, 417; BIOLOGY 140; HBM 258, MBЮS 130; H D 201, 202, 203, 204, 302, 310, 320, 350, 406, 407, 410, 479, 480.
Health and Fitness(67 hours): KINES 266, 311; BIOLOGY one from 102, 106, 107; BIOLOGY 140, 251; CHEM 101 or 105; MBIOS 130; KINES 199, 262, 264, 266, 311, 312, 361, 380, 393, 461, 462, 481, 483, 484, 393, 481, 483; KINES 199, 262, 264, 362, 380, 415, 461, 481; PE ACT 112, 114, 132, 120/121, individual team PE ACT; PSYCH 230.
History(48 hours): ECONS 102; POL S 101; HISTORY 101, 102, 110, 111, 120, 300, 422, 469, 480; two from HISTORY 230 or 231, 270 or 271 , 272 or 273,274 , 275; one from HISTORY 411, 413, 414, 415, 416; one from HISTORY 412, 417, 418, 419; 6 credits hours 300400 level HISTORY electives which must include one European and one global non-western course.
Mathematics(44 hours): MATH 171, 172, 216, 220, 273, 300, 301, 303, 330, 360, 398, 403, 431, 432, 320 or 421; PHYSICS 201.
Music: Each endorsement requires the passing of a piano proficiency examination, an upper-division exam, a solo half-recital, a 2.5 gpaGPA and a grade of C or better in all music courses. If the requirements listed below along with the graduation requirements of the College of

Arts and Sciences are met, the degree will be Bachelor of Music. Broad (73 hours): MUS 164, 251, 252, 253, 254, 351, 352, 353, 354, 359, 360, 361, 455, 467, 480, 481, 482, 483, 487, 488, 489, 490, 491, 493, 494, 497. Performance Studies: 14 credits hours of which 2 credits hours must be at the 400 -level. Include a minimum of 2 credits in choral and 2 credits in performing groups. Performance Groups: 7 credits hours, minimum of 1 credit hour during each of seven semesters, to include at least one semester of MUS 435 for instrumentalists and MUS 428 for vocalists. Inelude a minimum of $z$ hours in choral and 2 hours in performing groups. Total performance experience (performance studies and performing groups) must include a minimum of 4 hours in choral/vocal music and 4 hours in instrumental music.
Choral/General(67 hours): MUS 164, 251, 252, 253, 254, 351, 352, 353, 354, 359, 360, 361, 455, 480, 482, 483, 488, 489, 490, 491, 497. Performance Studies: 14 credits hours of which 2 credits hours must be at the 400 level. Performance Groups: 7 credits hours, minimum of 1 credit hour during each of seven semesters, to include at least 1 credit hour of MUS 428.
Instrumental/General(69 hours): MUS 164, 251, 252, 253, 254, 351, 352, 353, 354, 359, 360, 361, 455, 480, 482, 483, 487, 490, 491, 493, 494, 497. Performance Studies: 14 credits hours minimum of which 2 credits hours must be at the 400 level. Performance Groups: 7 credits hours, minimum of 1 credit hour during each of seven semesters, to include at least 1 credit hour of MUS 435.
Physics(64-69 hours): ASTRONOM 345; BIOLOGY 106; 430, CHEM 105, 106; one from HISTORY 381, 382, 483; SOC 430, or HONORS 390; MATH 171, 172, 220, 273, 315; PHYSICS 201 or 205, 202 or 206, 303, 304, 410, 415 or 514; 499 ( 4 credits hours includes observing PHYSICS 101 and 102); SCIENCE 430; one from STAT 212, 412 or PSYCH 311; two from PHYSICS 320, 330, 341.
Social Studies(63 hours): ECONS 102; HISTORY 101, 102, 110, 111, 120, 422, 480 and 12 credits hourss of upper-division history electives w/advisor approval that must include a non-western, a European, a U.S. History, and an elective; POL S 101; SOC 101; one from ANTH 101, 198, 203, 260; one from ECONS 320, 327, 416, 427, 404, 428, 430; two from HISTORY 230 or 231, 270 or 271, 272 or 273, 274, 275; one from HISTORY 319, 495, ANTH 309; one from HISTORY 469, SOC 320; one from POL S 300, 316, 427, 450, 455, CRM J 320; one from ANTH 307, 316, 320, 330, 331, 350, PSYCH 310, 324, 361, 470, SOC 320, 351, 384, 430.

## ADD-ON ENDORSEMENTS

Anyone wishing to add an endorsement to a valid Washington State teacher certificate must make application to the WSU add-on endorsement program. The application and more information can be found on the College of Education's website (http://education.wsu.edu/studentservices/endorsements). The following endorsements are available as add-on endorsements only. Individuals may be recommended for endorsement in bilingual education, English Language Learners, reading, middle level science, middle level mathematics, science, or special education concurrently
with completion of endorsement requirements in elementary education or one of the specific subject endorsements listed above, or as an endorsement added to a currently valid teacher certificate.
Bilingual Education(21 hours): TCH LRN 333 or 510, 339 or 549, 401 or 501,409 or $509,411,413$ or 414 or 514 and 509 ; one from ENGLISH 256 or TCH LRN 330, 404, 504 (highly recommended), 512, 516, 537, 574, 580. Demonstrated proficiency in a language other than English by passing the oral and written proficiency tests of the American Council on the Teaching of Foreign Language (ACTFL) at the advance mid-level.
English Language Learners [undergraduate level](18 hours): TCH LRN 330, 333, 339, 401, 413 or 414, and 409 (emder development) or 509, or equivalent. One from ENGLISH 256 or TCH LRN 330, 404, 504 (highly recommended), 512, 516, 537, 574, 580.
English Language Learners [graduate level](18 hours): TCH LRN 501, 509, 510, 514, 549; one from TCH LRN 512, 516, 504, (highly recommended), 537, 574 or 580.
Middle Level Science (17 hours): CHEM 101, BIOLOGY 107, PHYSICS 150, SCIENCE 430, TCH LRN 513, 304.
Middle Level Math: MATH 106, 252, 303, 351; TCH LRN 426 or
533, 427 or 534 approved probability and statistics course.
Middle Level Science(17 hours): CHEM 101, BIOLOGY 107, PHYSICS 150, SCIENCE 430, TCH LRN 304.
Reading [undergraduate level] ( 20 + hrs): TCH LRN 528, 551, 553, 558; TCH LRN 307, 322, 413.
Reading [graduate level](20+ hours): TCH LRN 528, 537, 544, 546, 551, 553, 558; one from TCH LRN 307, 532, 544, 547, 548, 552; one from TCH LRN 322, 538, 546, 556; one from TCH LRN-413, 505, 507, 537.
Science(hours vary): The candidate must complete a full endorsement in biology, chemistry, physics, or earth and space science, plus the following courses, if not included in the full endorsement: one 3-4 credit Astronomy course; CHEM 345; two from GEOLOGY 102, 210, 323 or 390; BIOLOGY 107.
Special Education [undergraduate level](31 hours): SPEC ED 301, 401, 402, 403, 404, 409, 421, 440, 470, 490 or 499 (4 credits).
Special Education [graduate level](31 hours): SPEC ED 301, 501, 502, 503, 504, 509, 521, 540, 571, 590 or 499 (4 credits).

