

UNDERGRADUATE AND PROFESSIONAL MAJOR CHANGE BULLETIN NO. 3
Fall 2024

Faculty Senate approved November 14, 2024

--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. The column to the far right indicates the date each change becomes effective. Note: Items marked {S} have been streamlined and do not require Catalog Subcommittee review.

Department	Proposed	Effective Date
<p>Business Revise requirements for minor in Event Management</p>	<p>Event Management</p> <p>Please see the Carson College of Business section of this Catalog for additional instructions. To be admitted into the Event Management minor, students must meet the following minimum requirements:</p> <ul style="list-style-type: none"> ▪ Complete 27 credits ▪ WSU cumulative GPA of at least 2.50 and not on academic probation notice. <p>The minor in Event Management requires a minimum of 19 credits of coursework, including:</p> <ul style="list-style-type: none"> ▪ HBM 301 ▪ HBM 383 ▪ HBM 384 ▪ HBM 401 ▪ <u>912</u> credits from the following: HBM 235, 358, 381, <u>384</u>, 480, 494, 498, IBUS 435. ▪ Students must maintain an overall GPA of at least 2.50 in courses required for the HBM major. ▪ A minimum of 9 credits of upper-division coursework must be taken in residence at WSU or through WSU-approved education abroad or educational exchange courses. ▪ Up to 6 credits may be transferred from another institution. <p>To be admitted into this minor, students must meet with a business advisor and declare their interest. Students must ensure that they meet all course prerequisites before enrolling in any College of Business courses. In addition, students must complete 400 hours of internship/industry experience to earn the minor. In order for hours to count for the requirement, they must meet the following criteria:</p> <ul style="list-style-type: none"> ▪ Hours must be worked after high-school graduation; ▪ All hours must be documented as paid; ▪ Hours must be worked at a company whose primary source of revenue is derived from hospitality services; and ▪ The employer evaluation for the hours must reflect an average of 80% across the ratings criteria on the form. 	<p>8-25</p>

<p>Languages, Cultures, and Race Revise requirements for BA in Foreign Languages and Cultures - Spanish</p>	<p>Spanish (120 Credits)</p> <p>A minimum of 34 <u>33</u> credits 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. <u>Credit for SPANISH 101, 102, and 203 and Spanish 105, 205, 305, and 405 may not be applied toward</u> 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 school for details.</p> <p>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.</p> <p>Students are admitted to the Spanish major upon making their intentions known to the School of Languages, Cultures and Race. However, no course in which a C- or lower grade is earned will be counted toward the major. 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.</p> <p>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.</p> <p>Of the 34 <u>33</u> credits required for the major, a minimum of 15 must be taken in residence with 6 of these credits 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 SPANISH 105, 205, 305, and 405 may not be applied toward the major.</p> <p>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.</p> <p>First Year</p> <table data-bbox="378 1560 1365 1774"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>ENGLISH 101 [WRTG]</td> <td>3</td> </tr> <tr> <td>FOR LANG 101, 110, 120, 130, or 220</td> <td>3</td> </tr> <tr> <td>MATH 103 (if needed) or Electives¹</td> <td>3</td> </tr> <tr> <td>SPANISH 101, 102, 203² or Elective²¹</td> <td>4 <u>or</u> 3</td> </tr> </tbody> </table> <p>Second Term</p> <table data-bbox="378 1801 1365 1877"> <thead> <tr> <th><i>Second Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>Equity and Justice [EQJS]</td> <td>3</td> </tr> </tbody> </table>	<i>First Term</i>	<i>Credits</i>	ENGLISH 101 [WRTG]	3	FOR LANG 101, 110, 120, 130, or 220	3	MATH 103 (if needed) or Electives ¹	3	SPANISH 101, 102, 203 ² or Elective ²¹	4 <u>or</u> 3	<i>Second Term</i>	<i>Credits</i>	Equity and Justice [EQJS]	3	<p>8-25</p>
<i>First Term</i>	<i>Credits</i>															
ENGLISH 101 [WRTG]	3															
FOR LANG 101, 110, 120, 130, or 220	3															
MATH 103 (if needed) or Electives ¹	3															
SPANISH 101, 102, 203 ² or Elective ²¹	4 <u>or</u> 3															
<i>Second Term</i>	<i>Credits</i>															
Equity and Justice [EQJS]	3															

HISTORY 105 [ROOT]	3
Quantitative Reasoning [QUAN]	3
SPANISH 102, 203 ² or Elective ⁻²¹	<u>3 or 4</u>
SPANISH 105 ² or Elective ¹	1
Second Year	
<i>First Term</i>	<i>Credits</i>
Biological Sciences [BSCI] with lab ³⁴	4
Communication [COMM] or Written Communication [WRTG]	3
Social Sciences [SSCI]	3
SPANISH 203 ² or Elective ⁻²¹	4 <u>3</u>
SPANISH 205 ² or Elective ¹	1
Electives ¹	3
<i>Second Term</i>	<i>Credits</i>
Humanities [HUM]	3
Physical Sciences [PSCI] with lab ³⁴	4
SPANISH 204 ³ or <u>208</u>	4 <u>3</u>
SPANISH 205 ² or Elective ¹	1
Electives ¹	4
Complete Writing Portfolio	
Third Year	
<i>First Term</i>	<i>Credits</i>
Diversity [DIVR]	3
SPANISH 306	3
SPANISH 307	3
SPANISH Film/Literature/Culture Elective ⁴⁵	3
Electives or FOR LANG 440 if teaching major ¹	3
<i>Second Term</i>	<i>Credits</i>
Arts [ARTS]	3
SPANISH 305 ² or e Elective ¹	1
SPANISH 308	3
SPANISH Film/Literature/Culture Elective ⁴⁵	3
300-400-level Electives ¹	5
Fourth Year	
<i>First Term</i>	<i>Credits</i>
SPANISH 407	3
SPANISH 450 [M], 451 [M], 452 [M], or 453 [M]	3

	<p>Electives¹ 910</p> <p><i>Second Term</i> <i>Credits</i></p> <p>Integrative Capstone [CAPS] 3</p> <p>SPANISH 305 or e<u>E</u>lective 1</p> <p>SPANISH 408 [M] 3</p> <p>SPANISH 450 [M], 451 [M], 452 [M], or 453 [M] 3</p> <p>300-400-level Electives¹ 46</p> <p>Exit Proficiency Exam</p> <hr/> <p>Footnotes</p> <p>¹ Electives must be represented by a competence in a second foreign language up to and including 204; an approved university minor or a teaching minor; or a second major in another field.</p> <p>² <u>Course does not count toward the major requirement of at least 33 credits of SPANISH.</u></p> <p>²³ Student must meet proficiency requirement to enroll in SPANISH 204.</p> <p>³⁴ <u>To meet University and College of Arts and Sciences requirements, students must take an additional 1 lab credit of [BSCI] or PSCI for a total of 8 credits (2 labs) course with lab and [PSCI] course with lab.</u></p> <p>⁴⁵ Approved SPANISH Film/Literature/Culture Electives include (two courses): SPANISH 310, 311, 320, 321, 350, 351, 361, 362, 363, 364, 365, or as approved by advisor.</p>	
<p>Languages, Cultures, and Race Revise requirements for BA in Foreign Languages and Cultures – Spanish Secondary Education</p>	<p>Spanish – Secondary Education (120 Credits)</p> <p>Students who wish to earn a teaching credential must apply to the Teacher Preparation Program in the College of Education. They should consult with an advisor in Teaching and Learning regarding the education requirements and with an advisor in SPANISH regarding the Spanish requirements.</p> <p>To be admitted to the Spanish Teaching option, a student must have earned at least a 2.50 cumulative GPA. A grade of C or better is required in all SPANISH courses to fulfill the requirement of this degree.</p> <p><u>A minimum of 39 credits beyond the 102 level (or the equivalent level in competence) in the language is required to complete the Spanish Secondary Education Major.</u> SPANISH 101 and 102 do not count toward the major, but students must complete these courses or show equivalent proficiency to enroll in SPANISH 203.</p> <p>Departmental advance placement credits: 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 school for details.</p> <p>No course in which a C- or lower grade is earned will be counted toward the major. 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.</p>	<p>8-25</p>

Teaching majors are strongly encouraged to spend at least a summer abroad, living in the target culture and enhancing their fluency. Many accredited study abroad programs are available. Students should work with their advisors in the selection of a program or if wanting to consider alternate options to the study abroad requirement.

Of the ~~35 SPANISH~~ 39 credits required for the teaching major, a minimum of 15 must be taken in residence at WSU with 6 of these credits at the 400 level. A maximum of 12 credits per semester or 18 credits per academic or calendar year earned in a study abroad program may be applied toward the teaching major. Credits for SPANISH 105, 205, 305, and 405 may not be applied toward the major.

All teaching 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

<i>First Term</i>	<i>Credits</i>
ENGLISH 101 [WRTG]	3
FOR LANG 101 [DIVR] [<u>HUM</u>] or 110 [DIVR] or 120 [DIVR]	3
<u>Humanities [HUM] (SPANISH 120 suggested)</u>	<u>3</u>
SPANISH 120 [HUM]	3
SPANISH 203 ¹	<u>4</u> 3
SPANISH 205 <u>and/or</u> Elective ²	<u>1</u> 2

<i>Second Term</i>	<i>Credits</i>
ENGLISH 201 [WRTG]	3
Equity and Justice [EQJS]	3
HISTORY 105 [ROOT]	3
SPANISH 204 <u>or</u> 208	<u>4</u> 3
SPANISH 205 <u>and/or</u> Elective ²	<u>1</u> 2

Second Year

<i>First Term</i>	<i>Credits</i>
Biological Sciences [BSCI] with lab ³	4
Quantitative Reasoning [QUAN]	3
SPANISH 306	3
SPANISH 308	3

<i>Second Term</i>	<i>Credits</i>
Arts [ARTS]	3
Physical Sciences [PSCI] with lab ³	4
SPANISH 307	3

SPANISH Film/Literature/Culture Elective ⁴	3
TCH LRN 301	3
Apply for certification into the Secondary Teacher Certificate Program	
Complete Writing Portfolio	
<i>Third Term</i>	<i>Credits</i>
TCH LRN 317 Initial Practicum Experience (Summer)	2
Third Year	
<i>First Term</i>	<i>Credits</i>
FOR LANG 440	3
Social Sciences [SSCI]	3
SPANISH 407 or 408 [M]	3
SPANISH 450 [M], 451 [M], 452 [M], or 453 [M]	3
SPANISH Film/Literature/Culture Elective ⁴	3
<i>Second Term</i>	<i>Credits</i>
SPANISH 407 or 408 [M]	3
SPANISH 450 [M], 451 [M], 452 [M], or 453 [M]	3
TCH LRN 464	3
TCH LRN 465	3
TCH LRN 466	3
Fourth Year	
<i>First Term</i>	<i>Credits</i>
<u>Capstone [CAPS] course⁵</u>	<u>3</u>
ED PSYCH 468	3
SPANISH 420 [CAPS] or FOR LANG 410 [CAPS]	3
TCH LRN 467	3
TCH LRN 469	3
TCH LRN 470	3
Complete FL proficiency Exit Exam	
Pass Designated World Language WEST-E and American Council on the Teaching of Foreign Languages (ACTFL) at the advance-low level	
<i>Second Term</i>	<i>Credits</i>
TCH LRN 415 Student Teaching	16
Footnotes	
¹ Student must meet proficiency requirement to enroll in SPANISH 203.	
² SPANISH 205 is not required for degree. Students who do not take SPANISH 205 may need elective credits to meet University graduation requirement of 120 credits.	

	<p>³ To meet University and College of Arts and Sciences requirements, students must take <u>an additional 1 lab credit of [BSCI] or PSCI for a total of 8 credits (2 labs) course with lab and [PSCI] course with lab.</u></p> <p>⁴ SPANISH Film/Literature/Culture Electives: Approved courses include SPANISH 310, 311, 320, 321, 350, 351, 361, 362, 363, 364, 365, or as approved by advisor.</p> <p>⁵ <u>Suggested Capstone [CAPS] courses include FOR LANG 410 and SPANISH 450, 451, and 452.</u></p>	
<p>Languages, Cultures, and Race Revise requirements for Additional Major - German for the Professions</p>	<p>Additional Major – German for the Professions</p> <p>Students who are admitted in a major may seek an additional major in German for the Professions. This additional major does not lead to a degree. The additional major requires 39 <u>32</u> credits, as follows: 1) Language Foundation (15 <u>14</u> credits) -- GERMAN 101, 102, 203, and 204. Note that most students entering WSU will have already fulfilled the equivalent of the 101 and 102 courses, if they choose to pursue the same foreign language for this major; 2) Intermediate Language (6 credits) -- GERMAN 307 and 308; 3) Language for Specific Purposes (6 credits) -- GERMAN 320 and 361 [COMM]; and 4) Upper-level Experience (12 <u>6</u> credits) -- GERMAN 420 [CAPS]; two Writing in the Major courses (see school); and FOR LANG 495, Internship / Service Learning / Undergraduate Research / <u>GERMAN 380 or 480, or Study Abroad (for 8 weeks minimum). In addition, students must complete two Writing in the Major [M] courses (GERMAN 308 and an [M] course from the student's main major).</u> No course in which a C- or lower grade is earned will be counted toward the additional major. No course taken pass/fail may be included for credit toward the major, <u>except for FOR LANG 495 and GERMAN 380 and 480.</u> 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. The STAMP 4S (Standards-based Measurement of Proficiency) web-based assessment of foreign language proficiency in reading, writing, speaking, and listening and will be taken during the semester in which the student is completing the final course for the major taught in the target language.</p>	<p>8-25</p>
<p>Physics & Astronomy Revise requirements for BS in Physics - Applied Physics Option</p>	<p>Applied Physics Option (121 Credits)</p> <p>The program of courses below is appropriate for students who wish to enter industry upon graduation. 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. Students who have not had calculus in high school should defer PHYSICS 201/211 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.</p> <p>Admission to the Major requirements Students may be admitted to the major upon making their intentions known to the department.</p>	<p>8-25</p>

Graduation Requirements

A research experience is required of all students as a PHYSICS 489 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

<i>First Term</i>	<i>Credits</i>
CHEM 105 [PSCI]	4
Diversity [DIVR]	3
ENGLISH 101 [WRTG]	3
MATH 171 [QUAN]	4
PHYSICS 188	1

<i>Second Term</i>	<i>Credits</i>
CHEM 106	4
ENGR 120	2
HISTORY 105 [ROOT]	3
MATH 172	4
PHYSICS 189	1

Second Year

<i>First Term</i>	<i>Credits</i>
ECONS 101 [SSCI]	3
Equity and Justice [EQJS]	3
MATH 220,225 or 230	2 or 3
MATH 273	2
PHYSICS 201	3
PHYSICS 211	1
Foreign Language, if needed ¹	0-4
Option Elective ²	3

<i>Second Term</i>	<i>Credits</i>
Arts [ARTS]	3
ECONS 102	3
MATH 315	3
PHYSICS 202	3

PHYSICS 212	1
Foreign Language, if needed ¹	0-4
Option Elective ²	3
Complete Writing Portfolio	
Third Year	
<i>First Term</i>	<i>Credits</i>
PHYSICS 303	3
PHYSICS 320	3
PHYSICS 341	3
STAT 360 or 370	3
Option Elective ²	3
<i>Second Term</i>	<i>Credits</i>
Biological Sciences [BSCI]	<u>34</u>
PHYSICS 304	3
PHYSICS 330	3
PHYSICS 342	3
PHYSICS 489	1
Option Elective ²	3
Fourth Year	
<i>First Term</i>	<i>Credits</i>
COM 400 [COMM], ENGLISH 301 [WRTG], or ENGLISH 402 [WRTG]	3
Humanities [HUM]	3
PHYSICS 443	3
PHYSICS 450	3
PHYSICS 490 [M]	1
Option Elective ²	3
<i>Second Term</i>	<i>Credits</i>
Integrative Capstone [CAPS]	3
PHYSICS 415 [M]	3
PHYSICS Electives ³	3
Option Elective ²	3

Footnotes

¹ Two years of high school foreign language or at least two semesters of college-level foreign language are required by the College of Arts and Sciences for graduation.

² Option Electives (18 credits): Choose from CE, CPT S, E E, ME, and MSE courses not used to fulfill other requirements.

³ Physics Electives (3 credits): Choose any 300-400-level ASTRONOM or PHYSICS courses not used to fulfill other requirements.

Physics & Astronomy Revise requirements for BS in Physics - Astrophysics Option	<p>Astrophysics Option (120 Credits)</p> <p>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. Students who have not had calculus in high school should defer PHYSICS 201/211 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.</p> <p>Students may be admitted to the physics major upon making their intentions known to the department.</p> <p>Graduation Requirements</p> <p>A research experience is required of all students as a PHYSICS 489 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.</p> <p>First Year</p> <table data-bbox="378 1157 1385 1745"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CHEM 105 [PSCI]</td> <td>4</td> </tr> <tr> <td>ENGLISH 101 [WRTG]</td> <td>3</td> </tr> <tr> <td>MATH 171 [QUAN]</td> <td>4</td> </tr> <tr> <td>PHYSICS 188</td> <td>1</td> </tr> <tr> <td>Social Sciences [SSCI]</td> <td>3</td> </tr> <tr> <td colspan="2">Second Term</td> </tr> <tr> <td></td> <td><i>Credits</i></td> </tr> <tr> <td>CHEM 106 or 116</td> <td>4</td> </tr> <tr> <td>HISTORY 105 [ROOT]</td> <td>3</td> </tr> <tr> <td>MATH 172</td> <td>4</td> </tr> <tr> <td>PHYSICS 189</td> <td>1</td> </tr> <tr> <td>PHYSICS 201</td> <td>3</td> </tr> <tr> <td>PHYSICS 211</td> <td>1</td> </tr> </tbody> </table> <p>Second Year</p> <table data-bbox="378 1843 1385 1883"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> </table>	<i>First Term</i>	<i>Credits</i>	CHEM 105 [PSCI]	4	ENGLISH 101 [WRTG]	3	MATH 171 [QUAN]	4	PHYSICS 188	1	Social Sciences [SSCI]	3	Second Term			<i>Credits</i>	CHEM 106 or 116	4	HISTORY 105 [ROOT]	3	MATH 172	4	PHYSICS 189	1	PHYSICS 201	3	PHYSICS 211	1	<i>First Term</i>	<i>Credits</i>	<p>8-25</p>
<i>First Term</i>	<i>Credits</i>																															
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<i>First Term</i>	<i>Credits</i>																															

Biological Sciences [BSCI]	3
MATH 220, <u>225 or 230</u>	<u>2 or 3</u>
MATH 273	2
PHYSICS 202	3
PHYSICS 212	1
PHYSICS 303	3
Foreign Language, if needed ¹	0-4
<i>Second Term</i>	<i>Credits</i>
Arts [ARTS]	3
ASTRONOM 390	1
MATH 315	3
PHYSICS 304	3
PHYSICS 330	3
Foreign Language, if needed ¹	0-4
Complete Writing Portfolio	
Third Year	
<i>First Term</i>	<i>Credits</i>
ASTRONOM 345	3
CPT S 111, 121, 131, E E 221, or MATH 300	2-4
Humanities [HUM]	3
MATH Elective ²	3
PHYSICS 320	3
PHYSICS 341	3
<i>Second Term</i>	<i>Credits</i>
ASTRONOM 435 or 436	3
COM 400 [COMM], ENGLISH 301 [WRTG], or ENGLISH 402 [WRTG]	3
MATH Elective ²	3
PHYSICS 342	3
PHYSICS 410	4
PHYSICS 489	1
Fourth Year	
<i>First Term</i>	<i>Credits</i>
Diversity [DIVR]	3
Equity and Justice [EQJS]	3
PHYSICS 450	3
PHYSICS 490 [M]	1
Technical Elective ³	3

	<p>Second Term</p> <p>ASTRONOM 435 or 436 3</p> <p>Integrative Capstone [CAPS] 3</p> <p>PHYSICS 415 [M] 3</p> <p>Technical Elective³ 6</p> <hr/> <p>Footnotes</p> <p>¹ Two years of high school foreign language or at least two semesters of college-level foreign language are required by the College of Arts and Sciences for graduation.</p> <p>² MATH Electives (6 credits): Choose from 300-400-level MATH courses not used to fulfill other requirements.</p> <p>³ Technical Electives (9 credits, at least 6 must be 300-400 level): Choose from ASTRONOM, CHEM, MATH, or PHYSICS courses not used to fulfill other requirements.</p>																											
<p>Physics & Astronomy Revise requirements for BS in Physics - Planetary Sciences Option</p>	<p>Planetary Sciences Option (120 Credits)</p> <p>The option in planetary sciences is an interdisciplinary program between the Department of Physics and Astronomy and the School of the Environment. It is appropriate for students who wish to continue their studies in graduate school or pursue careers immediately upon graduation. The curriculum is applicable to a broad range of disciplines from mathematical physics to applied environmental science. The student gains experience with experimental science, data collection and analysis, and analytical reasoning. A one-semester research experience is a requirement for graduation. A free elective course allows students to fine-tune their education in their senior year. Students may be admitted to the physics major upon making their intentions known to the department.</p> <p>First Year</p> <table data-bbox="378 1199 1365 1457"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CHEM 105 [PSCI]</td> <td>4</td> </tr> <tr> <td>ENGLISH 101 [WRTG]</td> <td>3</td> </tr> <tr> <td>Equity and Justice [EQJS]</td> <td>3</td> </tr> <tr> <td>MATH 171 [QUAN]</td> <td>4</td> </tr> <tr> <td>SOE 100 or PHYSICS 188</td> <td>1</td> </tr> </tbody> </table> <table data-bbox="378 1486 1365 1696"> <thead> <tr> <th><i>Second Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CHEM 106 or 116</td> <td>4</td> </tr> <tr> <td>HISTORY 105 [ROOT]</td> <td>3</td> </tr> <tr> <td>MATH 172 or 182</td> <td>4</td> </tr> <tr> <td>SOE 103 or ASTRONOM 138</td> <td>3</td> </tr> </tbody> </table> <p>Second Year</p> <table data-bbox="378 1801 1365 1877"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CPT S 111</td> <td>3</td> </tr> </tbody> </table>	<i>First Term</i>	<i>Credits</i>	CHEM 105 [PSCI]	4	ENGLISH 101 [WRTG]	3	Equity and Justice [EQJS]	3	MATH 171 [QUAN]	4	SOE 100 or PHYSICS 188	1	<i>Second Term</i>	<i>Credits</i>	CHEM 106 or 116	4	HISTORY 105 [ROOT]	3	MATH 172 or 182	4	SOE 103 or ASTRONOM 138	3	<i>First Term</i>	<i>Credits</i>	CPT S 111	3	<p>8-25</p>
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CPT S 111	3																											

MATH 273 or 283	2	
PHYSICS 201 [PSCI]	3	
PHYSICS 211 [PSCI]	1	
SOE 102	4	
Foreign Language, if needed	0-4	
<i>Second Term</i>		<i>Credits</i>
Biological Sciences [BSCI]	3	
Diversity [DIVR]	3	
MATH 220- or , <u>225</u> or 230	2 or 3	
PHYSICS 202	3	
PHYSICS 212	1	
SOE 210	4	
Foreign Language, if needed	0-4	
Complete Writing Portfolio		
Third Year		
<i>First Term</i>		<i>Credits</i>
MATH 315	3	
PHYSICS 303	3	
Social Sciences [SSCI]	3	
SOE 340 [M]	4	
STAT 212	4	
<i>Second Term</i>		<i>Credits</i>
ASTRONOM 435	3	
Humanities [HUM]	3	
PHYSICS 304	3	
<u>SOE 350</u>	<u>4</u>	
SOE 356	3	
SOE 474 [CAPS] [M]	4	
Fourth Year		
<i>First Term</i>		<i>Credits</i>
Arts [ARTS]	3	
ASTRONOM 345	3	
ENGLISH 402 [WRTG] or COM 400 [COMM]	3	
SOE 350	4	
<u>SOE 356</u>	<u>3</u>	
SOE 499 or PHYSICS 499	1	
<i>Second Term</i>		<i>Credits</i>

	ASTRONOM 450 3 SOE 357 3 SOE 480 3 SOIL SCI 374 3 Elective ¹ 3																	
Physics & Astronomy Revise requirements for BS in Physics - Standard Option	<p>Standard Option (120 Credits)</p> <p>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. Students who have not had calculus in high school should defer PHYSICS 201/211 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.</p> <p>Students may be admitted to the physics major upon making their intentions known to the department.</p> <p>Graduation Requirements</p> <p>A research experience is required of all students as a PHYSICS 489 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.</p> <p>First Year</p> <table data-bbox="378 1528 1385 1791"> <thead> <tr> <th><i>First Term</i></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CHEM 105 [PSCI]</td> <td>4</td> </tr> <tr> <td>ENGLISH 101 [WRTG]</td> <td>3</td> </tr> <tr> <td>MATH 171 [QUAN]</td> <td>4</td> </tr> <tr> <td>PHYSICS 188</td> <td>1</td> </tr> <tr> <td>Social Sciences [SSCI]</td> <td>3</td> </tr> </tbody> </table> <p>Second Term</p> <table data-bbox="378 1818 1385 1892"> <thead> <tr> <th></th> <th><i>Credits</i></th> </tr> </thead> <tbody> <tr> <td>CHEM 106 or 116</td> <td>4</td> </tr> </tbody> </table>	<i>First Term</i>	<i>Credits</i>	CHEM 105 [PSCI]	4	ENGLISH 101 [WRTG]	3	MATH 171 [QUAN]	4	PHYSICS 188	1	Social Sciences [SSCI]	3		<i>Credits</i>	CHEM 106 or 116	4	8-25
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HISTORY 105 [ROOT]	3
MATH 172	4
PHYSICS 189	1
PHYSICS 201	3
PHYSICS 211	1
Second Year	
<i>First Term</i>	<i>Credits</i>
Biological Sciences [BSCI]	3
MATH 220, 225 or 230	2 or 3
MATH 273	2
PHYSICS 202	3
PHYSICS 212	1
PHYSICS 303	3
Foreign Language, if needed ¹	0-4
<i>Second Term</i>	<i>Credits</i>
Arts [ARTS]	3
MATH 315	3
PHYSICS 304	3
PHYSICS 330	3
Foreign Language, if needed ¹	0-4
Complete Writing Portfolio	
Third Year	
<i>First Term</i>	<i>Credits</i>
CPT S 111, 121, 131, E E 221, or MATH 300	2-4
Diversity [DIVR]	3
Humanities [HUM]	3
MATH Elective ²	3
PHYSICS 320	3
PHYSICS 341	3
<i>Second Term</i>	<i>Credits</i>
COM 400 [COMM], ENGLISH 301 [WRTG], or ENGLISH 402 [WRTG]	3
MATH Elective ²	3
PHYSICS 342	3
PHYSICS 410	4
PHYSICS 489	1
Standard Option Elective ³	3

Fourth Year	
<i>First Term</i>	<i>Credits</i>
Equity and Justice [EQJS]	3
PHYSICS 450	3
PHYSICS 490 [M]	1
Standard Option Electives ³	6
Technical Elective ⁴	3
<i>Second Term</i>	<i>Credits</i>
Integrative Capstone [CAPS]	3
PHYSICS 415 [M]	3
Standard Option Electives ³	4 - 6
Technical Elective ⁴	3
Footnotes	
¹ Two years of high school foreign language or at least two semesters of college-level foreign language are required by the College of Arts and Sciences for graduation.	
² MATH Electives (6 credits): Choose from 300-400-level MATH courses not used to fulfill other requirements.	
³ Standard Option Electives (13 credits minimum): Choose from 300-400-level ASTRONOM and PHYSICS courses not used to fulfill other requirements.	
⁴ Technical Electives (6 credits, at least 3 must be 300-400 level): Choose from ASTRONOM, CHEM, MATH, or PHYSICS courses not used to fulfill other requirements.	