American Sign Language Studies
A minor in American Sign Language Studies requires 15 credit hours in A S L at the 300 or 400 level.

Animal and Veterinary Sciences
A minor in Animal and Veterinary Sciences requires AVS 150 and 151; one course selected from AVS 200, 201, 203, 204, 206, 209; and nine hours selected from any 300- or 400-level AVS courses. A maximum of three credits of AVS 360, 441, 442, 443 or 491 may be used.

Anthropology
A minor in Anthropology requires ANTH 201 and at least six hours selected from ANTH 301, 331, 351, LANG (ANTH) 371. Nine additional hours may be selected from the courses above or from the following: ANTH 320, 403, (W S) 423, 495, 496, 498, CHIN (ANTH) 418, JAPN (ANTH) 417, SOC 433. No more than six credits of ANTH 496 may be counted toward the minor.

Athletic Leadership
A minor in Athletic Leadership requires 17 credit hours arranged as follows: A L 349, 350, 353, 360, 362, 376, and one of the following: A L 371, 372, 373, 374, 375, 377. Students must complete a coaching internship or athletic administrative internship (A L 400) with the approval of the Athletic Leadership Coordinator.

Biochemistry
A minor in Biochemistry requires BIOCH 301, 302, and at least 11 credits in any other biochemistry course at the 400 level.

Bioengineering
A minor in Bioengineering requires at least 15 credits and must include BIO E 302, 320, 401. The remaining credits may be chosen from B E 312, BIO E 315, 340, 341, BIOSCI 222, 223, 458, 459, C M E 210, M E 302, 308.

Biological Sciences
A minor in Biological Sciences requires 15 credits and must include both a lecture and corresponding laboratory in animal diversity (BIOSEC 302/306 or 303/307) and a lecture and corresponding laboratory in plant diversity (BIOSEC 304/308 or 305/309); remaining credits (minimum of seven) must be selected from BIOCH, BIOSEC, or GEN courses numbered 300 or higher.

Business Administration
A minor in Business Administration requires ACCT 201, ECON 211, 212, FIN 306, LAW 322, MGT 201, MKT 301.

Chemistry
A minor in Chemistry requires CH 101, 102, and 15 additional credits in Chemistry, at least nine of which must be at the 300 or 400 level, selected in consultation with the Department of Chemistry.

Clustering
The Cluster minor allows students a somewhat wider choice of course materials than is possible with the conventional subject-matter minor. The general requirement for the Cluster minor is 15 credits in courses numbered higher than 300, except where noted differently, chosen according to one of the plans below. Courses within the student’s major area may not be included in the Cluster minor.

Group I—Social Sciences: anthropology, economics, geography, history, political science, psychology, sociology

Group II—Life Sciences: biochemistry, biological sciences, genetics, microbiology

Group III—Physical Sciences: chemistry, geology, physics

Group IV—Engineering: courses in all engineering majors plus engineering mechanics and engineering graphics

No course in the 100 series is acceptable toward the minor and not more than six hours in the 200 series are acceptable.

Communication Studies
A minor in Communication Studies requires completion of one of the following options: COMM 201 (with a C or better) and 12 additional credits in communication studies, none of which must be at the 300–400 level. Three hours at the 400 level must be included.

Sports Communication—COMM 201 (with a C or better), COMM 325, 326, 327, and 425

Computer Science
A minor in Computer Science requires CP SC 212 and 12 additional credits in computer science of which at least nine credits must be at the 300 level or higher.

Crop and Soil Environmental Science
A minor in Crop and Soil Environmental Science requires AGRIC 104, CSENV 202, and nine or more credits at the 300 level or higher.

East Asian Studies
A minor in East Asian Studies requires 15 credits, of which at least six credits must be at the 400 level, distributed as follows: three credits from Group I, six additional credits selected from Group I or from Group II, and six credits from Group III:

Group I—CHIN (ANTH) 418, HIST 334, JAPN (ANTH) 417, PO SC 372

Group II—HIST 330, 333, PHIL (CHIN) 312, (CHIN) 313, PO SC 472, 477, REL 314, or any other approved courses selected from department list

Group III—E A S 123, JAPN 401, 409, LANG 401, any Chinese or Japanese language course, or any other approved courses selected from department list

Courses in Groups II and III must represent a combination of Chinese and Japanese courses.

Economics
A minor in Economics requires ECON 314, 315, and nine additional credits from economics courses numbered 300 or higher.
Minors, Programs and Degrees

Education
A minor in Education requires ED F 301, 302, 334 or 335, ED SP 370, and three hours from any A L, CTE, ED C, NURS, PRTM, PHIL, PO SC, PSYCH, or SO C course at the 200 level or higher. This minor does not meet the requirements for teacher certification and is not intended for persons who plan to teach in grades K–12.

English
A minor in English requires 15 credits in English above the sophomore level, arranged as follows:

- Shakespeare—ENGL 411
- British—Three credits from ENGL 396, 397, 407, 408, 410, 414, 415, 416, 417, 418, 433, 444
- American—Three credits from ENGL 398, 399, 420, 421, 425, 426, 427, 455

Electives—Six additional credits above the sophomore level, including at least three credits from the 400 level

Entomology
A minor in Entomology requires ENT (BIOSC) 301 and 12 credits in entomology courses at the 300 level or higher.

Entrepreneurship
A minor in Entrepreneurship consists of 15 credits including the following: ACCT 201, ECON (MG T) 306 or 314, and FIN 306. Six credit hours from one of the following tracks are also required:

- Planning—MK T (E L E) 314, MGT (E L E) 315
- Experiential—E L E 301, 401
- Foundations—ECON (E L E) 321, SOC (E L E, PO SC, PSYCH) 356

Note: Not open to business majors except BA in Economics.

Environmental Engineering
A minor in Environmental Engineering requires at least 15 credits as follows: EE&S 401, at least six credits from Group I, and at least three credits from Group II. The remaining three credits may be selected from either group. All courses are to be chosen in consultation with the Department of Environmental Engineering and Earth Sciences.

- Group I—EE&S 402, 410, 411, 430, (B E) 484, 485, 486
- Group II—B E 322, C E 342, 447, CH 223, 411, 413, CH E 401, 450, CSENV (ENTOX, GEOL) 485, EN SP 200, 400, ENTOX 400, (ENT) 430, GEOL 408, MICRO 305, 410

Environmental Science and Policy
A minor in Environmental Science and Policy requires at least 18 credits including EN SP 200, 400, and at least 12 credits from the following:

- Group I—Science and Engineering: at least six credits selected from BIOSC 410, 441, 442, 443, 446, CH 413, CSENV 202, (B E) 408, 475, 490, EE&S 401, 402, 430, 485, ENT 300, ENTOX 400, 421, (ENT) 430, FOR 206, W F B 414
- Group II—Resource Management: at least two credits selected from AGRIC (EN SP) 315, B E 464, C M E 433, C R D (AP EC) 357, CSENV 404, ECON 319, EE&S (B E) 484, FOR 315, 406, GEOL 300, W F B 306, (BIOSC) 313, 350, 412, 462
- Group III—Environmental Policy and Social Impacts: at least two credits selected from AP EC 433, EN SP 472, HIST 392, HLTH 431, PHI L 345, PSYCH 355, R S (SOC) 401, W F B 430

Equine Business
A minor in Equine Business requires AVS 150, 451, and 204; three hours selected from any graded (not pass/fail) 300- or 400-level AVS courses; and six hours selected from AVS 208, 309, 385, 386, 412, or 416.

Film Studies
A minor in Film Studies requires 15 credits in ENGL above the sophomore level, arranged as follows:

- ENGL 350, HIST 495, PHIL 315
- ART 313, ENGL 438, (THEA) 430, 453, 459, 483, or other course approved by the departmental Director of Undergraduate Studies.

Financial Management

Food Science
A minor in Food Science requires FD SC 214, 401, and eight additional credits in FD SC or NUTR courses numbered 300 or higher.

Forest Products
A minor in Forest Products requires 15 credits, which must include at least four courses selected from FOR 341, 400, 441, 442, 444, 447. Other courses at the 300 level or above may be selected with a Forest Products advisor’s approval.

Forest Resource Management
A minor in Forest Resource Management requires FOR 205, 206, 305, and at least seven additional credits of forestry courses at the 300 level or higher, excluding FOR 300, 400, 419, 447.

Genetics
A minor in Genetics requires GEN 302, 303, and at least 11 credits in any other genetics course at the 400 level.

Geography
The Geography minor consists of three credits of geography at the 100 level and 15 credits of geography at the 300 or 400 level. At least one 400-level geography course must be taken. One of the following courses may be taken as part of the 15-credit, upper-level requirements but may not be substituted for the required 400-level geography course: BIOSC 442, SOC (R S) 471.

Geology
A minor in Geology requires GEOL 101/103, 102, and 12 additional credits in geology, at least nine of which must be drawn from 300–400-level geology courses.

Global Politics
A minor in Global Politics requires PO SC 102 or 104; 361; and 12 additional credits chosen from the list below. At least three of these credits must be from Group I and at least three credits from Group II:

- Group II—International Relations: PO SC 362, 363, 367, 373, 374, 375, 376, 429, 456, 457, 459, 461

With the approval of the Political Science department chair, a maximum of three credits from PO SC 305, 311, (SPAN) 382, (FR) 383, or 410 also may be applied toward a Global Politics minor. Students majoring in Political Science may not minor in Global Politics.

Great Works
The Great Works minor requires G W (ENGL) 301 plus one course from each of the following groups. A minimum of nine credits must be at the 400 level.

- Group I—Classical Civilization: Three credits from ENGL 403, 429, (COMM) 491, HIST 354, 355, 450, PHIL 315
- Group II—Post-Classical Literature: Three credits from ENGL 408, 411, 414, 416, FR 400, G W 403, SPAN 313, 401
- Group III—Philosophy, Religion, and Social Thought: Three credits from ENGL 350, HIST 495, PHIL 316, 317, PO SC 450, REL 301, 302, 401
- Group IV—The Arts: Three credits from A A H 423, 424, HUM 301, 302, MUSIC 415, 416, THEA 315, 316
- Group V—The Sciences: BIOSC 486, ENGL 427, 434, G W 402, 405

History
A minor in History requires 15 credits in history at the 300 and 400 level. Three credits at the 400 level must be included.

Horticulture
A minor in Horticulture requires HORT 101 and 12 additional credits of horticulture courses (excluding HORT 271, 408, 417), nine credits of which must be at the 300 level or higher.
International Engineering and Science
The minor in International Engineering and Science, open to students in any major in the College of Engineering and Science, requires
1. Completion of a foreign language through at least 202 and
2. Either (a) nine credits of engineering or science courses at the 300 level or higher transferred from a foreign institution during an approved study abroad program of at least three months or (b) an approved international internship or research program in engineering or science of at least three months duration, plus nine credits chosen from 300-level or higher foreign language courses; ECON 310, 412, 413; and PO SC 361, 362, 371, 375, 472, 477, 478.

The international study, internship, or research program must be approved in advance by the Associate Dean for Undergraduate Studies of the College of Engineering and Science.

Legal Studies
A minor in Legal Studies requires 15 credits at the 300–400 level, with at least six credits selected from Group I, at least six credits selected from Group II, and the remaining three credits selected from either group at the student’s option:1

Group I—HIST 328, 329, 496; PHIL 343, PO SC 437, 438, SOC 388
Group II—ECON 402, LAW 322, 333, 405, 420, 499

1Additional courses may be approved by a committee composed of representatives selected by the Dean of the College of Architecture, Arts and Humanities and by the Dean of the College of Business and Behavioral Science.

Management
A minor in Management requires 15 credits as follows: MGT 201, 307, 310, 318, 390.

Management Information Systems
A minor in Management Information Systems requires 15 credits as follows: ACCT 322 or MGT 318; MGT 411, 452, and two of the following: MGT 312, 454, 455, 456.

Mathematical Sciences
A minor in Mathematical Sciences requires MTHSC 208 and 12 additional credits in mathematical sciences courses numbered 300 or higher.

Microbiology
A minor in Microbiology requires MICRO 305 and 11 additional credits selected from 400-level microbiology courses.

Military Leadership
A minor in Military Leadership requires at least 15 credits including M L 301, 302, 401, 402, and one of the following: HIST 390, NURS 305, or PO SC 428. Completion of Leadership Laboratory and participation in cadet activities are mandatory. (M L 100 and 200 levels may be taken concurrently in the sophomore year.)

Modern Languages
A minor in Modern Languages requires 15 credits from one modern language (Chinese, French, German, Italian, Japanese, or Spanish) from courses at the 300 and 400 levels, including at least one literature course at the 400 level. In French, one of the 300-level courses must be FR 305. FR H438 and H439 and SPAN H438 and H439 may not be used to satisfy requirements for the French or Spanish minor.

Music
A minor in Music requires MUSIC 151, 152, 205, 206, 207, 208, 251, 252, 415 or 416; four semesters of ensemble, totaling four credits, selected from MUSIC 323, 361, 362, 363, 369, 370, 371, 372; and one three-hour music course at the 300–400 level.

Natural Resource Economics
A minor in Natural Resource Economics requires AP EC 457; C R D (AP EC) 357; and three courses selected from AP EC 352, 403, 409, 421, 433, 452, 475; C R D (AP EC) 412, ECON 319.

Nonprofit Leadership
A minor in Nonprofit Leadership requires NPL 300, 390, 490, and one course selected from each of the following areas:

Group I—COMM 348, 480, PRTM 308
Group II—ED F 334, 335, PSYCH 340, SOC 350
Group III—HLTH 401, PRTM 428, 429
Group IV—MGT 307, PSYCH 368
Group V—HLTH 440, PHIL 344, PO SC 321, PRTM 305, 321

Packaging Science
A minor in Packaging Science requires 18 credits and must include PKGSC 102, 202, 204, and 206. The remaining eight credits may be selected from FD SC 308, 401, 402, FOR 441, 442, GER 405, 406, PKGSC 320, 328, 401, 404, 416, 420, 430, 440, 454, 464.

Pan African Studies
A minor in Pan African Studies requires 18 credits as follows: HIST 311 or 312, P A S 301, and 12 credits arranged as follows:

Group I—Three credits from GEOG 330, HIST 337, 338, 339, 438, P A S 101, 498
Group II—Three credits from ENGL 482, 483, PO SC 381, SOC 460, THEA 317
Group III—Three credits in any 300–400 level course in the social sciences approved by the Director of the Pan African Studies Program

Group IV—Three credits in any 300–400 level course in the humanities approved by the Director of the Pan African Studies Program

Courses are to be scheduled in consultation with the appropriate advisors. Pan African Studies advisors will provide all affected advisors with a list of approved courses prior to registration.

Park and Protected Area Management
A minor in Park and Protected Area Management requires PRTM 270, 474 and nine additional credits from PRTM 320, 321, 330, 403, (GEOG) 430, 431.

Philosophy
A minor in Philosophy requires 15 credits in philosophy, nine of which must be at the 300 level or above.

Physics
A minor in Physics requires PHYS 122, 221, 222, and nine additional credits in physics courses at the 300 level or higher.

Plant Pathology
A minor in Plant Pathology requires PL PA 310 and 12 credits from the following: BIOSC (PL PA) 425, (PL PA) 426, GEN (BIOSC, MICRO) 418, I P M 401, MICRO 305, or any 300–400 level PL PA courses.

Political Science
A minor in Political Science requires PO SC 101 or 102 or 104 and 15 additional credits at the 300–400 level, nine of which must be selected from three different fields of political science as follows:

American Government—PO SC 403, 405, 416, 436, 442
Comparative Politics—PO SC 371, 372, 466, 471, 476, 477, 478
International Politics—PO SC 361, 362, 363, 375, 429

At least one 400-level course must be included. No more than a total of three credits from PO SC 310, 311, 312, 409, 410 may be applied to the requirements for a Political Science minor.

Psychology
A minor in Psychology requires PSYCH 201 and 15 credits from PSYCH 275 and/or 300- and 400-level psychology courses. At least one 400-level course must be included.

Public Policy
A minor in Public Policy requires PO SC 321, 421, and 430, plus nine credit hours in courses dealing with specific policy domains and approved by the Department of Political Science.

Religion
A minor in Religion requires 15 credits, nine of which must be at the 300 level or above. PHIL 303 and PO SC 407 may be included.

Russian Area Studies
A minor in Russian Area Studies requires 15 credit hours of which three credits must be in Russian language courses at the 200 level or above. The remaining twelve credits are distributed as follows:

Group I—Three credits from RUSS 307, 340, 360, 361, 398, 460
Group II—Three credits from HIST 385, 386, 387, 494
Group III—Three credits from PO SC 471, 473
Group IV—Three additional credits from any of the courses listed above
Science and Technology in Society
A minor in Science and Technology in Society requires 15 credits, at least six of which must be at the 400 level. See History Department advisor for list of approved courses.

Screenwriting
A minor in Screenwriting requires 15 credits in ENGL above the sophomore level as follows: ENGL 348, 357, 448 (six credits); and one of the following: ENGL 450, COMM 451, 452, 453, THEA (ENGL) 347, or other course approved by the departmental Director of Undergraduate Studies.

Sociology
A minor in Sociology requires SOC 201 and 15 credits from sociology and rural sociology courses numbered 300 or higher. At least one 400-level course must be included.

Spanish-American Area Studies
A minor in Spanish-American Area Studies requires the equivalent of SPAN 202, ECON 410, and 12 credits distributed as follows: six credits from GEOG 340, HIST 340, 341, 342, 440; and six credits from PSYC (SPAN) 382, SPAN 308, 311, 403, 422, 435.

Textiles
A minor in Textiles requires 15 credits from the following: TEXT 201, 202, 460, and any other approved textile course such as TEXT 308, 314, 416, 426, 428, 470, 472, 475.

Theatre
A minor in Theatre requires 20 credits arranged as follows: three credits of dramatic literature and history (ENGL 410, 411, 429, (THEA) 430, THEA (ENGL) 347); three credits of theatre history (THEA 315, 316, 317); six credits in a sequence (THEA 278/279, 315/316, (ENGL) 347/447, 376/476, 377/477 or 487 or 497); six credits in THEA at the 300–400 level; and two credits of THEA 279.

Therapeutic Recreation
A minor in Therapeutic Recreation requires PRTM 301, 311, 417, and at least two courses selected from PRTM 317, 416, 418, 420.

Travel and Tourism
A minor in Travel and Tourism requires PRTM 301, 342, and nine additional credits from PRTM 343, 344, 349, 392, 398, (GEOG) 430, 441, 444, 445, 446, 447, 498.

Turfgrass
A minor in Turfgrass requires CSENV 202, HORT 212, 412, and two of the following: AG M 402, HORT (CSENV) 433, PL PA (ENT) 406.

Urban Forestry
A minor in Urban Forestry requires a minimum of 16 credits, distributed as follows:
Group I—FOR (HORT) 427, 450, 480, HORT 208
Group II—A minimum of three credits selected from C R P 401, HORT 308
Group III—A minimum of three credits selected from ENT 401 or HORT 303

Wildlife and Fisheries Biology
A minor in Wildlife and Fisheries Biology requires W F B 300, 350; and nine additional hours selected from 300-level or higher W F B courses, except 463.

Women’s Studies
A minor in Women’s Studies requires 15 credits at the 300 and 400 level, distributed as follows:
Group I—Six credits: W S 301 and any 400-level W S course
Group II—Six credits from courses which deal entirely with women and gender issues: COMM 485, ENGL 380, HIST 318, PHIL (W S) 349, PSYCH 308, SOC 461, SPAN 403, and any additional courses approved for Group II
Group III—Three credits may be earned by taking any approved Women’s Studies minor course.
Courses selected in Groups II and III must represent at least two disciplines. Courses are to be scheduled in consultation with the appropriate advisor. The Women’s Studies Director will provide all affected advisors with a list of approved courses prior to registration each semester.

Writing
A minor in Writing requires 15 credits as follows:
Business and Technical Option—AP EC 351 or G C 104, CP SC 120, ENGL 304 or 314, 490, 495
Journalism Option—ENGL 231, 333, 334, 335; one of the following: AP EC 351, COMM 250, CP SC 120, CTE 489, ENGL 217, 304, 312, 314, G C 104, PHIL 102, and any course approved by the Chair of the English Department
Writing Pedagogy Option—ENGL 312, 400, 401, 485, and any 300- or 400-level writing course offered by the Department of English
Creative Writing Options
Drama—ENGL (THEA) 430, THEA (ENGL) 347, (ENGL) 447 (six credits), and one of the following: ENGL 312, 410, 411
Fiction—ENGL 345, 432, 445 (six credits), and one of the following: ENGL 312, 418, 425, 426, 428
Poetry—ENGL 346, 431, 446 (six credits), and one of the following: ENGL 312, 416, 417, 428, 444