

ENVIRONMENTAL ENGINEERING ELECTIVES

*Updated 12.8.23

READ THIS FIRST! Things to know as you explore which electives you might take:

- <u>Definition of an engineering elective</u>: Any elective that includes engineering design elements in the course and has been approved by the Undergraduate Curriculum Committee as an engineering elective. Do not assume that any <u>engineering course</u> is an <u>engineering elective</u>.
- <u>Definition of a technical elective:</u> Math, science, or engineering courses that are approved by the Undergraduate Curriculum Committee as a technical elective. All engineering electives are also included on the technical elective list.
- Courses in **bold** don't require any requisites beyond the courses already in your Degree Plan. Courses in *italics* require prerequisites that you may not have, unless you have a double major or minor in that area. This means that **most students should stick to exploring the courses that are in bold**, not in italics. Please keep in mind that this is just a guide, and you should check the course catalog for the most up to date requisites for each course.
- Courses in **red** are recently approved as electives and haven't yet been added to the Advisement Report system. You can still enroll in these courses; you just need to make sure to contact your advisor so they can manually add the course into your report.
- The superscripts can be useful for some students. An ^o indicates that the course is sometimes offered online, ^s denotes that the course may be offered in the summer, ^G means that the course can double dip as a General Education course, and ^N indicates that Advanced Standing is not required for the course (Freshman and Sophomores can take these). Note also that **only one** lower-level Gen Ed course can double dip as a Technical Elective; these courses are designated with a *.
- To figure out which electives you might enjoy, go to the catalog (<u>https://catalog.arizona.edu/</u>), choose the courses drop down (top left), then select course descriptions. From here, you can choose the first letter for the subject you are interested in and view all the courses offered in that department. Next, read the description, see when it is normally offered, and what the requisites are.
- Keep in mind that many courses can **double dip** with a minor. There are a few minors that you can complete entirely (or nearly entirely) just by double dipping your electives with the minor. Check out the **D2L** to explore the most popular minors our students take.
- Still stuck? Ask friends and classmates which electives they enjoyed and found manageable.
- If you find a course that is not on the list, but you think should be on the list, contact your advisor and we'll send it to the Undergraduate Curriculum Committee for review.



Key: | Recently Approved | Requisites Required | ^o Possibly Online | ^s Summer | ^G General Education | ^N AS not Required

EARTH SCIENCE ELECTIVES

Civil Engineering: CE 343

Environmental Science: ENVS 200^N, ENVS 270^N, ENVS 470

Hydrology and Water Resources: HWRS 405

ENGINEERING ELECTIVES

Aerospace & Mechanical Engineering: AME 301, AME 302, AME 313^s, AME 324B, AME 442A, AME 445, AME 446, AME 480

Atmospheric Sciences: ATMO 469A^N (cannot double dip to fulfill any other degree requirement)

Biosystems Engineering: BE 423, *BE* 426, BE428^{so}, BE 430^o, BE 444, BE 452, *BE* 455, *BE* 456, BE 459, BE 467^N, BE 475A, *BE* 479, *BE* 481A, BE 482, BE 485, BE 487

Biomedical Engineering: BME 416, BME 466, BME 483

<u>Civil Engineering:</u> CE 323, CE 363, CE 381, CE 422, CE 426, CE 427, CE 445, CE 455

<u>Chemical & Environmental Engineering:</u> CHEE 303, CHEE 305, CHEE 326, CHEE 402, CHEE 420, CHEE 437, CHEE 438, CHEE 481A, CHEE 482, CHEE 483, CHEE 485, CHEE 487, CHEE 489

Electrical & Computer Engineering: ECE 351C, ECE 414A, ECE 446, ECE 462

Engineering: ENGR 422, ENGR 452

Mining Engineering: MNE 411, MNE 417, MNE 422

Materials Science & Engineering: MSE 331R, MSE 345, MSE 437, MSE 450, MSE 460

Systems & Industrial Engineering: SIE 406, SIE 410A, SIE 457, SIE 464, SIE 466^{NS}



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TECHNICAL ELECTIVES

***Only one** lower level course can count as a Technical Elective.

Aerospace and Mechanical Engineering: AME 301, AME 302, AME 313^s, AME 324A, AME 324B, AME 442A, AME 445, AME 446, AME 480

Agriculture & Resource Economics: AREC 313, AREC 476, AREC 479

Atmospheric Sciences: ATMO 421^{NO}, ATMO 436A^{NO}, ATMO 441A^{NO}; ATMO 441B^{NO}, ATMO 451A^{NO}, ATMO 451B^N, ATMO 455^N, ATMO 469A^N, ATMO 490^V (ATMO 469A cannot double dip to fulfill any other degree requirement)

Biosystems Engineering: BE 284^N, BE 344^{so}, BE 385, BE 423, *BE 426*, BE 428^{so}, BE 430^o, BE 434^N, BE 444^N, BE 452, *BE 455*, *BE 456*, *BE 458*, BE 459, BE 467^N, *BE 475A*, BE 479, *BE 481A*, BE 482, *BE 483*, *BE 485*, BE 486, *BE 487*

Biomedical Engineering: BME 416, BME 461, BME 466, BME 486

<u>Chemical & Environmental Engineering:</u> *CHEE 303, CHEE 305, CHEE 326,* **CHEE 402**, *CHEE 412, CHEE 413, CHEE 420,* **CHEE 437, CHEE 438**, *CHEE 481A,* **CHEE 482, CHEE 483**, *CHEE 485, CHEE 487, CHEE 489*

Chemistry: CHEM 325^N, CHEM 326^N, CHEM 380^{NS}, CHEM 437, CHEM 450, CHEM 480A^N

<u>Civil Engineering:</u> CE 301^G, CE 323, CE 333, CE 334, CE 335, CE 363, CE 381, CE 422, CE 423, CE 426, CE 427, CE 445, CE 455

Computer Science: CSC 460

Cyber Operations: CYBV 301^s

Ecology and Evolutionary Biology: ECOL 302, ECOL 326⁵, ECOL 329A, ECOL 335, ECOL 340, ECOL 346, ECOL 360, ECOL 410

Economics: ECON150C2^{GN}*

Electrical & Computer Engineering: ECE 320A, ECE 351C, ECE 414A, ECE 446, ECE 462, ECE 479

Engineering: ENGR 422, ENGR 435, ENGR 452, ENGR 495, ENGR 495A

Environmental Health Sciences: EHS 418^N, EHS 420^N, *EHS 422*, EHS 425^N, EHS 426^N, EHS 439A^{NS}, EHS 484^N, EHS 489^N



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Environmental Science: ENVS 300^N, *ENVS 305^V*, ENVS 310^{GN}, ENVS 320^N, ENVS 330^{NOS}, ENVS 340^N, ENVS 376^N, ENVS 401^N, *ENVS 410^V*, ENVS 428R^N, ENVS 431^N, ENVS 462^N, ENVS 464^N, *ENVS 470^V*, ENVS 480^N

<u>Geography & Development:</u> GEOG 302^N, GEOG 304^N, GEOG 330^{NOS}, GEOG 338^N, GEOG 368^N, GEOG 374^N, GEOG 379^N, GEOG 461^N

Geosciences: GEOS 400^N, GEOS 410^V, GEOS 412A^N, GEOS 419^N

Government & Public Policy: SGPP 301^{SN}, SGPP 303^{SN}, SGPP 320^V, SGPP 335^V

Health Promotion Science: HPS150C1^{GNS*}, HPS 401^S, HPS 409^N, HPS 495^S

<u>Hydrology and Water Resources:</u> HWRS 340^N, HWRS 350^N, HWRS 401^N, HWRS 404^N, HWRS 405^N, HWRS 413A^N, HWRS 413B^N, HWRS 421^N, HWRS 428^N, HWRS 431^N, HWRS 443A, HWRS 449, HWRS 452^N, HWRS 480, HWRS 481^N, HWRS 482^N

Information Science: *ISTA 303*^N, *ISTA 311*^N, *ISTA 320*^N, *ISTA 321*^N, *ISTA 322*^N, *ISTA 330*^N, *ISTA 331*^N, *ISTA 350*^V, *ISTA 355*^V, **ISTA 397S**^N, *ISTA 403*^N, *ISTA 410*^V, **ISTA 416**^N, *ISTA 421*^N, *ISTA 429*^V, *ISTA 431*^{NS}, **ISTA 439**^N, **ISTA 450**^N, **ISTA 450**^N, **ISTA 456**^V, *ISTA 457*^V

Law: LAW 454^N

<u>Materials Science & Engineering:</u> MSE 331R, MSE 345, MSE 412, *MSE* 415⁰, *MSE* 435, MSE 437, MSE 446, MSE 450, MSE 460, MSE 461

Mathematics: *MATH 302A^N*, *MATH 302B^N*, **MATH 310^{NS}**, **MATH 313^{NS}**, *MATH 315^N*, **MATH 325^N**, **MATH 323^{NS}**, *MATH 330^N*, *MATH 355^N*, **MATH 361^N**, **MATH 362^N**, **MATH 396T^N**, **MATH 401A^N**, **MATH 401B^N**, **MATH 402^N**, *MATH 404^N*, *MATH 406A^N*, *MATH 406B^N*, *MATH 407^N*, *MATH 413^N*, *MATH 415A^N*, *MATH 415B^N*, *MATH 422^N*, *MATH 424^N*, *MATH 425A^N*, *MATH 425B^N*, *MATH 432^N*, *MATH 443^N*, *MATH 445^N*, *MATH 446^N*, *MATH 447^N*, *MATH 454^N*, **MATH 456^N**, **MATH 462^N**, *MATH 466^N*, *MATH 466^N*, *MATH 466^N*, *MATH 475A^N*, *MATH 475B^N*, *MATH 475B^N*, *MATH 475B^N*, *MATH 466^N*, *MATH 466^N*, *MATH 466^N*, *MATH 475A^N*, *MATH 475B^N*, *MATH 466^N*, *MATH 466^N*, *MATH 466^N*, *MATH 475A^N*, *MATH 475B^N*, *MATH 485^N*, *MATH 488^N*, *MATH 496T^N*

Microbiology: MIC 320^N, MIC 328R^N, MIC 329A^N, MIC 350^N, MIC 425^N

Mining Engineering: MNE 411, MNE 417, MNE 422

Pharmacology: PHCL 422^N

Physics: PHYS 371^N, PHYS 450^N

Planetary Sciences: PTYS 212^{GN}*



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Planning: PLG 497S^N

Plant Pathology: PLP427R^N Political Science: POL 481^N

Public Health Practice: PHP 421^{NOS}

Public Administration and Policy: PA 482^N

Public Relations: PR 317^N

<u>Renewable Natural Resources:</u> RNR150C1^{GNS*}, RNR 316^N, RNR 351^N, RNR 403^s, RNR 416C^N, RNR 416E^N, RNR 417^{SN}, RNR 420^N, RNR 427^N, RNR 440, RNR 458^N, RNR 472^N, RNR 495F^S

Science: SCI 396A

Sustainable Built Environments: SBE 450^N

Statistics and Data Science: DATA 367, DATA 375, DATA 396T^N, DATA 462^N, DATA 467, DATA 496T^N

<u>Systems & Industrial Engineering:</u> SIE 321, *SIE 340^s*, *SIE 377*, SIE 406, SIE 408, SIE 410A, SIE 414, SIE 415, SIE 422, SIE 432^s, *SIE 440,* SIE 454A, SIE 457, *SIE 463*, SIE 464, SIE 466^s

Watershed Management: WSM 426

