

| | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | |
|--------------------------------|-------------|--------------------------------|-----------------------------------|--------------|---|---|------------------------|---|---|--|
| FIRST YEAR | FALL | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | |
| | | ! | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | |
| | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | Recommended: CSCI 1380 | |
| | | | 3 | Choose 1 | Creative Arts (Core) | | 050 | | See General Education Core for course options. | |
| | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| 16 Semester Total Hours | | | | | | | | | | |
| FIRST YEAR | SPRING | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | |
| | | ! | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | ! | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | 080 | | Recommended: ECON 1301 or ECON 2301 | |
| 16 Semester Total Hours | | | | | | | | | | |
| SECOND YEAR | FALL | ! | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | ! | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2425 | |
| | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | 040 | | See General Education Core for course options. | |
| | | 17 Semester Total Hours | | | | | | | | |
| | SECOND YEAR | SPRING | | 3 | MATH 3343 | Introduction to Mathematical Software | c | | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better. | |
| | | | ! | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | See General Education Core for course options. |
| | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2426 | | | |
| 14 Semester Total Hours | | | | | | | | | | |

CORE: The 2017-2019 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core
www.utrgv.edu/core

Symbols Key

Critical (!): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|--------------------------------|--------------------------------|---|-----------|---------------|------------------------------|------------|-----|--|-------------------------------------|--|
| THIRD YEAR | FALL | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | 15 Semester Total Hours | | | | | | | | | |
| | SPRING | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | MATH 3349 | Numerical Methods | c | | MATH 2414 (or MATH 2488) and MATH 3343, each with a grade of 'C' or better. | | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | 3 | XXXX X3XX | Free Elective | | | | | | |
| 15 Semester Total Hours | | | | | | | | | | |
| FOURTH YEAR | FALL | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | MATH 3331 | Applied Statistics I | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | 15 Semester Total Hours | | | | | | | | | |
| | SPRING | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| 12 Semester Total Hours | | | | | | | | | | |

Graduation Requirements: The student must complete all these major course requirements and all MATH courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better.

In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

120 TOTAL HOURS
(54) TOTAL ADVANCED HOURS

Approved:
Revised: Wednesday, April 26, 2017

| | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | | |
|--------------------------------|-------------|--------------------------------|----------|--------------|---|---|--------------|---|---|---|--|
| FIRST YEAR | FALL | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | | |
| | | ! | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | Recommended: CSCI 1380 | |
| | | | 3 | ECON 2301 | Principles of Macroeconomics | | | 080 | | | |
| | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. | |
| 16 Semester Total Hours | | | | | | | | | | | |
| FIRST YEAR | SPRING | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | | |
| | | ! | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | | |
| | | ! | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | | 3 | ECON 2302 | Principles of Microeconomics | c | | | ECON 2301 with a grade of 'C' or better. | | |
| 16 Semester Total Hours | | | | | | | | | | | |
| SECOND YEAR | FALL | ! | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | ! | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | | 030 | | Recommended: PHYS 2425 | |
| | | 14 Semester Total Hours | | | | | | | | | |
| | SECOND YEAR | SPRING | ! | 3 | MATH 3343 | Introduction to Mathematical Software | c | | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or | | |
| | | | ! | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | See General Education Core for course options. |
| | | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | | 030 | | See General Education Core for course options. |
| 14 Semester Total Hours | | | | | | | | | | | |

CORE: The 2017-2019 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core www.utrgv.edu/core

Symbols Key

Critical (!): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|-------------|--------|---|-----------|-----------------------------|---------------------------------------|------------|-----|--|--|--|
| THIRD YEAR | FALL | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | ECON 3351 | Macroeconomic Theory | | | ECON 2301 and ECON 2302. | | |
| | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | 040 | | See General Education Core for course options. | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | | | 15 | Semester Total Hours | | | | | |
| | SPRING | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | ECON 3352 | Microeconomic Theory | c | | ECON 2301 and ECON 2302. | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | 3 | XXXX X3XX | Free Elective | | | | | | |
| | | | 15 | Semester Total Hours | | | | | | |
| FOURTH YEAR | FALL | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | | |
| | | | 3 | ECON 3341 | Econometrics | c | | ECON 2301, ECON 2302, and QUMT 2341. | | |
| | | | 3 | XXXX X3XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | | | 15 | Semester Total Hours | | | | | |
| | SPRING | | 3 | ECON 4361 | Studies in Economics | c | | ECON 2301 and ECON 2302. | See Degree Plan for course options. | |
| | | | 3 | ECON 3342 | Business and Economics Forecasting | c | | ECON 3341. | See Degree Plan for course options. | |
| | | | 3 | Choose 1 | Creative Arts (Core) | c | 050 | | See General Education Core for course options. | |
| | | | 3 | XXXX X3XX | Free Advanced Elective | | | | | |
| | | 3 | XXXX X3XX | Free Elective | | | | | | |
| | | | 15 | Semester Total Hours | | | | | | |

Graduation Requirements: The student must complete all these major course requirements and all MATH courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better.

In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

120 TOTAL HOURS
(48) TOTAL ADVANCED HOURS

Approved:
Revised: Wednesday, April 26, 2017

| | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | | |
|-------------|-------------|--------|-----------|-----------------------------|---|---|--------------|---|---|--|--|
| FIRST YEAR | FALL | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | | |
| | | ! | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | ! | 1 | UTCH 1101 | Inquiry Approaches to Teaching | c | | | Criminal background check and TB vaccine. | | |
| | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | Recommended: CSCI 1380 | |
| | | | 3 | Choose 1 | Creative Arts (Core) | | | 050 | | See General Education Core for course options. | |
| | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. | |
| | | | 17 | Semester Total Hours | | | | | | | |
| FIRST YEAR | SPRING | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | | |
| | | ! | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | | |
| | | ! | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | ! | 1 | UTCH 1102 | Inquiry-Based Lesson Design | c | | | UTCH 1101 with a grade of 'C' or better or concurrent enrollment with UTCH 1101. | | |
| | | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | | 080 | | Recommended: ECON 1301 or ECON 2301 | |
| | | | | | 17 | Semester Total Hours | | | | | |
| SECOND YEAR | FALL | ! | 3 | MATH 1350 | Fundamentals of Mathematics I | c | | MATH 1314 or MATH 1414 with a grade of 'C' or better. | | | |
| | | ! | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | | 030 | | Recommended: PHYS 2425 | |
| | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | | 040 | | See General Education Core for course options. | |
| | | | | 17 | Semester Total Hours | | | | | | |
| | SECOND YEAR | SPRING | ! | 3 | MATH 1351 | Fundamentals of Mathematics II | c | | MATH 1350 with a grade of 'C' or better. | | |
| | | | ! | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | ! | 3 | UTCH 3301 | Knowing and Learning in Mathematics and Science | c | | | UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor. | |
| | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | See General Education Core for course options. | |
| | | | 17 | Semester Total Hours | | | | Must apply to Teacher Education Program. | | | |

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General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|-------------|--------|-----------|-----------------------------|-----------------------------|---|------------|--|--|------------------|--|
| THIRD YEAR | FALL | | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | MATE 3301 | Fundamentals of Middle School Mathematics | c | | MATH 1351 with a grade of 'C' or better. | | |
| | | | 3 | MATE 3321 | Functions and Modeling | c | | MATH 2413 (or MATH 2487) and UTCH 1102, each with a grade of 'C' or better. | | |
| | | | 3 | UTCH 3302 | Classroom Interactions | c | | (a) A university grade point average of at least 2.75, (b) UTCH 3301 with a grade of 'C' or better or concurrent enrollment with UTCH 3301 with consent of UTeach advisor, and (c) positive evaluation of stage-one UTeach portfolio. | | |
| | | | 15 | Semester Total Hours | | | | | | |
| | SPRING | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATE 3302 | Fundamentals of Measurement and Geometry I | c | | MATH 1351 with a grade of 'C' or better. | | |
| | | | 3 | MATE 3304 | Fundamentals of Algebraic Structures | c | | MATH 1351 with a grade of 'C' or better. | | |
| | | 3 | READ 4305 | Content Area Literacy | | | Admission to COE Teacher Education Program. | | | |
| | | 15 | Semester Total Hours | | | | | | | |
| FOURTH YEAR | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
| | | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | MATE 3303 | Fundamentals of Measurement and Geometry II | c | | MATE 3302 with a grade of 'C' or better. | | |
| | | | 3 | MATE 3317 | Perspectives in Mathematics and Science | c | | MATE 3321, BIOL 3330, or PHYS 3330 with a grade of "C" or better. | | |
| | | | 3 | MATH 4337 | Probability and Statistics I | | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | 3 | UTCH 3303 | Project-Based Instruction | c | | (a) A university grade point average of at least 2.75, (b) UTCH 3302 with a grade of 'C' or better or concurrent enrollment with UTCH 3302 with consent of UTeach advisor, and (c) positive evaluation of the second-stage UTeach portfolio. | | | |
| | | | 15 | Semester Total Hours | | | | | | |
| | | | 3 | MATE 4319 | Research Methods in Middle School Mathematics | c | | Consent of instructor. | | |
| | | | 1 | UTCH 4101 | Apprentice Teaching Seminar | | | (a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) concurrent enrollment with UTCH 4601, (d) successful completion of PPR and content TExES examinations, and (e) acceptance of the third-stage UTeach portfolio. | | |
| | | | 6 | UTCH 4601 | Apprentice Teaching | | | (a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) successful completion of PPR and content TExES examinations, and (d) acceptance of the third-stage UTeach portfolio. | | |
| | | 10 | Semester Total Hours | | | | | | | |

Progression requirements: Admission to the College of Education is required for participation in Apprentice Teaching and Seminar (UTCH 4101, 4601). Students unable to be admitted to UTCH 4601 and UTCH 4101 will be required to

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123 TOTAL HOURS
(61) TOTAL ADVANCED HOURS

Approved:
 Revised: Wednesday, April 26, 2017

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| FIRST YEAR | FALL | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | |
| | | | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | |
| | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | Recommended: CSCI 1380 | |
| | | | 3 | Choose 1 | Creative Arts (Core) | | 050 | | See General Education Core for course options. | |
| | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| | | | | | 16 | Semester Total Hours | | | | |
| FIRST YEAR | SPRING | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | |
| | | | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | 080 | | Recommended: ECON 1301 or ECON 2301 | |
| | | | | | 16 | Semester Total Hours | | | | |
| SECOND YEAR | FALL | | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2425 | |
| | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | 040 | | See General Education Core for course options. | |
| | | | | 17 | Semester Total Hours | | | | | |
| | SECOND YEAR | SPRING | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | See General Education Core for course options. |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2426 | |
| | | | 14 | Semester Total Hours | | | | | | |

**CORE: The 2017-2019 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core
www.utrgv.edu/core**

Symbols Key

Critical (!): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary; 090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|-------------|--------|-----------|-----------------------------|------------------------------|------------|-----|--|-------------------------------------|--|
| THIRD YEAR | FALL | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | 3 | MATH 3365 | Number Theory | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | 3 | MATH 4342 | Complex Variables | c | | MATH 2415 with a grade of 'C' or better. | | |
| | | 3 | MATH X3XX | Major Advanced Elective | c | | | Recommended: MATH 3343 | |
| | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | | 15 | Semester Total Hours | | | | | |
| | SPRING | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | 3 | MATH 3349 | Numerical Methods | c | | MATH 2414 (or MATH 2488) and MATH 3343, each with a grade of 'C' or better. | | |
| | | 3 | MATH 43XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| 3 | | XXXX X3XX | Free Elective | | | | | | |
| | | 15 | Semester Total Hours | | | | | | |
| FOURTH YEAR | FALL | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | 3 | MATH 4355 | Topology | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | 3 | MATH 43XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | | 15 | Semester Total Hours | | | | | |
| | SPRING | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | 3 | XXXX X3XX | Free Elective | | | | | |
| | | 12 | Semester Total Hours | | | | | | |

Graduation Requirements: The student must complete all these major course requirements and all MATH courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better. In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

120 TOTAL HOURS
(54) TOTAL ADVANCED HOURS

Approved:
 Revised: Wednesday, April 26, 2017

| | | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | |
|--------------------------------|--------------------------------|---------------|---|----------|--------------|---|---|--------------|---|---|--|
| FIRST YEAR | FALL | | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | |
| | | | | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | |
| | | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | Recommended: CSCI 1380 | |
| | | | | 3 | Choose 1 | Creative Arts (Core) | | 050 | | See General Education Core for course options. | |
| | | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| 16 Semester Total Hours | | | | | | | | | | | |
| FIRST YEAR | SPRING | | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | |
| | | | | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | 080 | | Recommended: ECON 1301 or ECON 2301 | |
| | | | | | | | | | | | |
| 16 Semester Total Hours | | | | | | | | | | | |
| SECOND YEAR | FALL | | | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2425 | |
| | | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | 040 | | See General Education Core for course options. | |
| | 17 Semester Total Hours | | | | | | | | | | |
| | SECOND YEAR | SPRING | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | | | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | See General Education Core for course options. |
| | | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2426 | |
| 14 Semester Total Hours | | | | | | | | | | | |

**CORE: The 2017-2019 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core
www.utrgv.edu/core**

Symbols Key

Critical (!): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|--------------------------------|--------------------------------|--------|---|-----------|------------------------------|-------------------------|-----|--|---|---|
| THIRD YEAR | FALL | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | XXXX X3XX | Major Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| 15 Semester Total Hours | | | | | | | | | | |
| THIRD YEAR | SPRING | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| 15 Semester Total Hours | | | | | | | | | | |
| FOURTH YEAR | FALL | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE | |
| | | | 3 | XXXX X3XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | 15 Semester Total Hours | | | | | | | | | |
| | FOURTH YEAR | SPRING | | 3 | 33XX-43XX | Major Advanced Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE |
| | | | | 3 | XXXX X3XX | Major Elective | | | | College of Sciences or College Engineering & Computer Science; excluding MATH or MATE |
| | | | | 3 | 33XX-43XX | Free Advanced Elective | | | | |
| | | | | 3 | XXXX X3XX | Free Elective | | | | |
| 12 Semester Total Hours | | | | | | | | | | |

Graduation Requirements: The student must complete all these major course requirements and all MATH courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better. In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

120 TOTAL HOURS
(48) TOTAL ADVANCED HOURS

Approved:
Revised: Wednesday, April 26, 2017

| | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|-------------|-------------|-----------|-----------------------------|---|---|-----|---|--|--|
| FIRST YEAR | FALL | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | |
| | | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | |
| | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 | |
| | | 1 | UTCH 1101 | Inquiry Approaches to Teaching | c | | Criminal background check and TB vaccine. | | |
| | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | 090 | | Recommended: CSCI 1380 | |
| | | 3 | Choose 1 | Creative Arts (Core) | | 050 | | See General Education Core for course options. | |
| | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| | | 17 | Semester Total Hours | | | | | | |
| FIRST YEAR | SPRING | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | |
| | | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 | |
| | | 1 | UTCH 1102 | Inquiry-Based Lesson Design | c | | UTCH 1101 with a grade of 'C' or better or concurrent enrollment with UTCH 1101. | | |
| | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | 080 | | Recommended: ECON 1301 or ECON 2301 | |
| | | | | 17 | Semester Total Hours | | | | |
| SECOND YEAR | FALL | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | 3 | MATE 3321 | Functions and Modeling | c | | MATH 2413 (or MATH 2487) and UTCH 1102, each with a grade of 'C' or better. | | |
| | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) | |
| | | 4 | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2425 | |
| | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | 040 | | See General Education Core for course options. | |
| | | | 17 | Semester Total Hours | | | | | |
| | SECOND YEAR | SPRING | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | |
| | | | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | 3 | UTCH 3301 | Knowing and Learning in Mathematics and Science | c | | UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor. | |
| 4 | | | Choose 1 | Life and Physical Sciences (Core) | | 030 | | Recommended: PHYS 2426 | |
| | | 16 | Semester Total Hours | | | | | | |

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Symbols Key

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General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|-------------|------|-----------|-----------------------------|--|---|---|---|--|--|--|
| THIRD YEAR | FALL | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | MATE 3317 | Perspectives in Mathematics and Science | c | | MATE 3321, BIOL 3330, or PHYS 3330 with a grade of "C" or better. | | |
| | | | 3 | UTCH 3302 | Classroom Interactions | c | | (a) A university grade point average of at least 2.75, (b) UTCH 3301 with a grade of 'C' or better or concurrent enrollment with UTCH 3301 with consent of UTeach advisor, and (c) positive evaluation of stage-one UTeach portfolio. | | |
| | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | | See General Education Core for course options | |
| | | 13 | Semester Total Hours | | | | | | | |
| SPRING | | 3 | MATH 3326 | History of Mathematics | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | | |
| | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | 3 | MATE 3322 | Secondary Mathematics in a Technological Environment | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | | |
| | | 3 | READ 4305 | Content Area Literacy | | | Admission to COE Teacher Education Program. | | | |
| | | 15 | Semester Total Hours | | | | | | | |
| FOURTH YEAR | FALL | | 3 | MATH 3361 | Applied Discrete Mathematics | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | MATH 3365 | Number Theory | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATE 4329 | Research Methods in Secondary Mathematics | | | MATE 3317 or PHIL 3317 with a grade of "C" or better. | | |
| | | | 3 | UTCH 3303 | Project-Based Instruction | c | | (a) A university grade point average of at least 2.75, (b) UTCH 3302 with a grade of 'C' or better or concurrent enrollment with UTCH 3302 with consent of UTeach advisor, and (c) positive evaluation of the second-stage UTeach portfolio. | | |
| | | | 15 | Semester Total Hours | | | | | | |
| | | SPRING | | 4 | MATE 4423 | Advanced Studies in Secondary Mathematics | c | | MATH 3352 and MATH 3363, each with grade of 'C' or better. | |
| | | | 1 | UTCH 4101 | Apprentice Teaching Seminar | | | (a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) concurrent enrollment with UTCH 4601, (d) successful completion of PPR and content TExES examinations, and (e) acceptance of the third-stage UTeach portfolio. | | |
| | | | 6 | UTCH 4601 | Apprentice Teaching | | | (a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) successful completion of PPR and content TExES examinations, and (d) acceptance of the third-stage UTeach portfolio. | | |
| | | 11 | Semester Total Hours | | | | | | | |

Progression requirements: Admission to the College of Education is required for participation in Apprentice Teaching and Seminar (UTCH 4101, 4601). Students unable to be admitted to UTCH 4601 and UTCH 4101 will be required to substitute 3 advanced hours, as recommended by advisor.

Graduation Requirements: The student must complete all these major course requirements and all MATH and MATE courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better. In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

121 TOTAL HOURS
(65) TOTAL ADVANCED HOURS

Approved:
 Revised: Wednesday, April 26, 2017

| | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | |
|--------------------------------|--------------------------------|---------------|-----------------------------------|--------------|---|------------------------------------|--------------|---|---|---|
| FIRST YEAR | FALL | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H) | |
| | | ! | 4 | MATH 2413 | Calculus I | c | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 |
| | | | 3 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | Recommended: CSCI 1380 |
| | | | 3 | Choose 1 | Creative Arts (Core) | | | 050 | | See General Education Core for course options. |
| | | | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| 16 Semester Total Hours | | | | | | | | | | |
| FIRST YEAR | SPRING | | 3 | Choose 1 | Communication (Core) | c | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305 | |
| | | ! | 4 | MATH 2414 | Calculus II | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | ! | 3 | MATH 2318 | Linear Algebra | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | American History (Core) | | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328 |
| | | | 3 | Choose 1 | Social and Behavioral Sciences (Core) | | | 080 | | Recommended: ECON 1301 or ECON 2301 |
| 16 Semester Total Hours | | | | | | | | | | |
| | ! | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | | |
| SECOND YEAR | FALL | ! | 3 | MATH 1342 | Elementary Statistical Methods | c | | College Ready TSI status in Mathematics. | | |
| | | ! | 4 | MATH 2415 | Calculus III | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) |
| | | | 4 | Choose 1 | Life and Physical Sciences (Core) | | | 030 | | Recommended: PHYS 2425 |
| | | | 3 | Choose 1 | Language, Philosophy & Culture (Core) | | | 040 | | See General Education Core for course options. |
| | 17 Semester Total Hours | | | | | | | | | |
| | SECOND YEAR | SPRING | ! | 3 | MATH 3350 | Introduction to Mathematical Proof | c | | MATH 2318 with a grade of 'C' or better. | |
| ! | | | 3 | MATH 3341 | Differential Equations | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | Choose 1 | Government/Political Science (Core) | | | 070 | | See General Education Core for more details Options: POLS 2306 or POLS 2386 (H) |
| | | | 1 | Choose 1 | Integrative/Experiential Learning Option (Core) | | | 090 | | See General Education Core for course options. |
| | 4 | Choose 1 | Life and Physical Sciences (Core) | | | 030 | | Recommended: PHYS 2426 | | |
| 14 Semester Total Hours | | | | | | | | | | |

CORE: The 2017-2019 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core www.utrgv.edu/core

Symbols Key

Critical (!): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

| | | I | H | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes | |
|--------------------------------|--------------------------------|---|-----------|---------------|---------------------------------------|------------|-----|--|-------------------------------------|--|
| THIRD YEAR | FALL | | 3 | MATH 3331 | Applied Statistics I | c | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | | |
| | | | 3 | MATH 3334 | Sampling | c | | MATH 1342 (or MATH 1387), MATH 1343, or MATH 3331, with a grade of 'C' or better. | | |
| | | | 3 | MATH 3352 | Modern Geometry I | c | | MATH 2318 with a grade of 'C' or better. | | |
| | | | 3 | MATH 3363 | Modern Algebra I | c | | MATH 2318 and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | 15 Semester Total Hours | | | | | | | | | |
| | SPRING | | 3 | MATH 3372 | Real Analysis I | c | | MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better. | | |
| | | | 3 | MATH 3332 | Applied Statistics II | c | | MATH 3331 with a grade of 'C' or better. | | |
| | | | 3 | MATH 3335 | Applied Regression | c | | MATH 1342 (or MATH 1387), MATH 1343, or MATH 3331, with a grade of 'C' or better. | | |
| | | | 3 | MATH 3343 | Introduction to Mathematical Software | c | | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better. | | |
| | | 3 | XXXX X3XX | Free Elective | | | | | | |
| 15 Semester Total Hours | | | | | | | | | | |
| FOURTH YEAR | FALL | | 3 | MATH 4390 | Mathematics Project | c | | MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better. | | |
| | | | 3 | MATH 4337 | Probability and Statistics I | c | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | | |
| | | | 3 | MATH X3XX | Major Advanced Elective | c | | | See Degree Plan for course options. | |
| | | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| | 15 Semester Total Hours | | | | | | | | | |
| | SPRING | | 3 | MATH 4338 | Probability and Statistics II | c | | MATH 4337 with a grade of 'C' or better. | | |
| | | | 3 | MATH 3349 | Numerical Methods | c | | MATH 2414 (or MATH 2488) and MATH 3343, each with a grade of 'C' or better. | | |
| | | | 3 | 33XX-43XX | Free Advanced Elective | | | | | |
| | | | 3 | XXXX X3XX | Free Elective | | | | | |
| 12 Semester Total Hours | | | | | | | | | | |

Graduation Requirements: The student must complete all these major course requirements and all MATH courses with grades of 'C' or better and have with a GPA for the major of 2.5 or better. In addition to the graduation requirements listed in the UTRGV 2017-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

120 TOTAL HOURS
(51) TOTAL ADVANCED HOURS

Approved:
 Revised: Wednesday, April 26, 2017