DEPARTMENT OF NATURAL AND BEHAVIORAL SCIENCES

Professor and Chair
Patricia A. Nicosia, Ph.D. (Mathematics)

Professors
Ferris R. Byxbe, Ph.D., (Criminal Justice),
Martin G. Urbina, Ph.D., (Criminal Justice)

Associate Professors
Daniel H. Foley, III, Ph.D., (Biology), Wesley D. Wynne, Ph.D., (Psychology),

Assistant Professors
Tiffany F. Culver, Ph.D., (Psychology), Michael L. Ortiz, Ph.D., (Mathematics),

The Department of Natural and Behavioral Sciences combines several related academic disciplines into one administrative unit. The Department offers the Bachelor of Arts degree in Psychology, Bachelor of Science in Biology, Criminal Justice, and Mathematics. The Department also works with the Department of Education to offer course work leading to teacher certification. All degree programs require a minimum of 30 semester credit hours at SRSU-RGC and a minimum of 39 advanced semester credit hours.

Students majoring in programs offered by the Department of Natural and Behavioral Science must also participate in an assessment study. Each student should consult their advisor about specific requirements for their major.

BIOLOGY

MAJOR

The curriculum in biology is balanced between the scientific preparation to enter such fields as wildlife biology, environmental science, medicine, teaching and postgraduate work in biology as well as the liberal arts preparation of scientifically literate members of society who have the knowledge to contribute and compete in a rapidly changing world. The biology program offers students an opportunity to gain an appreciation of the biological world, to develop an inquisitive nature and to think scientifically.

The major orientation of the biology program is towards an organismal and ecological approach to the life sciences, emphasizing ecological and evolutionary plant and animal interrelationships. The course work is designed to provide a broad training in most aspects of modern biology and will prepare students for almost any advanced specialty discipline.

Required Core Curriculum (see page 42) 42 s.c.h.

Department course requirements for a major in Biology (courses may have been used to meet core requirements):

- **BIOL 1406** Biology for Science Majors I 4 s.c.h.
- **BIOL 1407** Biology for Science Majors II 4 s.c.h.
- **CHEM 1311/1111** General Chemistry I and Laboratory I 3/1 s.c.h.
- **CHEM 1312/1112** General Chemistry II and Laboratory II 3/1 s.c.h.
- **MTH 3302** Probability and Statistics I 3 s.c.h.
Biology course requirements for a major in Biology:

- BIO 3306 Genetics 3 s.c.h.
- BIO 4301 Cell Biology 3 s.c.h.

2 courses chosen from the following:

- BIOL 2401 Anatomy and Physiology I 4 s.c.h.
- BIOL 2402 Anatomy and Physiology II 4 s.c.h.
- BIOL 2406 Environmental Biology 4 s.c.h.
- BIOL 2421 Microbiology for Science Majors 4 s.c.h.

- 5 additional advanced Biology courses chosen from: 3302, 3307, 3401, 3402, 3406, 3407, 3402, 4403, 4404, 4409, 4415 (students may not take 3300) 18-20 s.c.h.

Total Biology course hours required for major 32-34 s.c.h.

Requirements for SRSU Rio Grande College degree:

1. A minimum of 120 semester credit hours;
2. A minimum of 39 semester credit hours of advanced course work;
3. A minimum of 30 semester credit hours with SRSU-RGC; and
4. Cumulative GPA of 2.0 or better; cumulative GPA for major and minor, 2.0 or better.

MINOR

Students must complete a minor of at least eighteen semester credit hours, including a minimum of nine semester credit hours of advanced coursework at SRSU-RGC. A maximum of nine semester credit hours of transfer courses can be used. Students may not take BIO 3300.

CHEMISTRY

Chemistry 1311 and 1111
Chemistry 1312 and 1112
Required:
Chemistry 3401, 3403, 3423
Select 3-4 hours from:
Chemistry 3315, 3402, 3404, 3425, 3431, 4313, 4351, 4380, 4389, 4407, 4410, or 4501
TOTAL FOR MINOR: 23-24 s.c.h.

CRIMINAL JUSTICE

MAJOR

A Bachelor of Science degree in Criminal Justice is designed to meet the needs of students pursuing a career in one of several areas of the criminal justice system. The curriculum provides students with both the opportunity and assistance to acquire the knowledge necessary to understand the roles of policing, courts, corrections, juvenile justice and laws as they contribute to social order. It further provides a theoretical foundation of the discipline and offers a thorough understanding of contemporary legal processes applied in criminal justice. The goal at Sul Ross State University Rio Grande College is to provide students with a structured, nurturing environment conducive to learning. The program leads to a Bachelor of Science degree in Criminal Justice which will qualify graduates for employment in many public service professions. Positions of employment currently exist for educated men and women as Criminal Justice practitioners at the federal, state, and local levels of government and many private sector agencies.

Students are advised that no more than 12 semester credit hours of Criminal Justice course work may be transferred from a two year (lower-level) institution.
Required Core Curriculum (see page 42) 42 s.c.h.

Department course requirements for a major in Criminal Justice: (courses may have been used to meet core requirements)
- Laboratory science (Biology, Chemistry, Geology, Physics) 16 s.c.h.
- Mathematics 1314, or any course(s) higher 6 s.c.h.

Criminal Justice course requirements for major in Criminal Justice:
- Cognate #1 (Criminology-based courses; select four courses) 12 s.c.h.
- CRIM 3300, 3302, 3306, 3309, 3311, 4300, 4303, 4304, 4308, 4312 12 s.c.h.
- Cognate #2 (Legal/Law-based courses; select four courses) 12 s.c.h.
- CRIM 3301, 3303, 3304, 3305, 3307, 3308, 3310, 4301, 4302, 4305, 4310 12 s.c.h.
- Cognate #3 CRIM 4309 (required capstone course) 3 s.c.h.
- Additional Criminal Justice courses (transfer credit hours) 12 s.c.h.

Note: CRIM 3311 is required for all Criminal Justice majors

Total Criminal Justice course hours required for major: 39 s.c.h.

Requirements for SRSU Rio Grande College degree:
1. A minimum of 120 semester credit hours;
2. A minimum of 39 semester credit hours of advanced course work;
3. A minimum of 30 semester credit hours with SRSU-RGC; and
4. Cumulative GPA of 2.0 or better; cumulative GPA in major and minor, 2.0 or better.

MINOR
Students must complete a minor of at least eighteen semester credit hours, including a minimum of nine semester credit hours of advanced coursework at SRSU-RGC. A maximum of nine semester credit hours of transfer courses can be used.

MASTER OF SCIENCE IN CRIMINAL JUSTICE
The Master of Science in Criminal Justice offered by Sul Ross Rio Grande College is through a cooperative arrangement with the Sul Ross State University main campus in Alpine. For details about the program, consult the online university catalog. Academic admission requirements are the same as other graduate programs. Applicants need to consult with a graduate advisor for admission details, course selection, and other degree requirements.

MATHEMATICS

MAJOR
A Bachelor of Science degree in Mathematics provides the opportunity to prepare for careers in industry, government agencies and teaching, and for graduate study in mathematics. Students seeking teacher certification in this major should refer to the Education Department section of this catalog for program admission requirements, required courses and course descriptions.

Required Core Curriculum (see page 42) 42 s.c.h.

Department course requirements for a major in Mathematics: (courses may have been used to meet core requirements)
- Precalculus Mathematics (MATH 2312) 3 s.c.h.
- Laboratory Science (Biology, Chemistry, Geology, Physics) 16 s.c.h.
Mathematics course requirements for major in Mathematics:

- MATH 2413 (TCCN) Calculus I 4 s.c.h.
- MATH 2414 (TCCN) Calculus II 4 s.c.h.
- MTH 3301 Geometry 3 s.c.h.
- MTH 3303 Multi-variant Calculus 3 s.c.h.
- MTH 3304 Linear Algebra 3 s.c.h.
- At least one of MTH 4301, 4307 Modern Abstract Algebra/Real Variables 3 s.c.h.
- MTH 4327 Readings and Research 3 s.c.h.
- Additional mathematics hours from 3302, 3305, 3306, 3307, 3310, 3312, 3313 or any 4000 level courses not used to satisfy other requirements (students may not take 3308, 3309, or 3311) 12 s.c.h.

Total Mathematics course hours required for major: 35 s.c.h.

Additional Requirements for the major in Mathematics:
1) Passing score on the practice mathematics 8-12 TExES exam during the year prior to graduation; and
2) Preparation and deliverance of a research paper and oral presentation as part of MTH 4327 during the year prior to graduation.

A maximum of 14 semester credit hours in mathematics may be transferred from another institution for the major in mathematics.

Requirements for SRSU Rio Grande College Degree:
1) A minimum of 120 semester credit hours;
2) A minimum of 39 semester credit hours of advanced course work;
3) A minimum of 30 semester credit hours with SRSU-RGC; and
4) Cumulative GPA of 2.0 or better; cumulative GPA in major and minor, 2.0 or better.

MINOR

Students must complete a minor of at least eighteen semester credit hours, including a minimum of nine semester credit hours of advanced coursework at SRSU-RGC. A maximum of nine semester credit hours of transfer courses can be used.

Students may not take MTH 3308, 3309, or 3311.

PSYCHOLOGY

The Psychology program is designed for individuals desiring a behavioral science major, a career in a human services profession, or graduate study in psychology, counseling, and related fields.

Required Core Curriculum (see page 42) 42 s.c.h.

Department course requirements for a major in Psychology: (courses may have been used to meet core requirements).
- SPCH 1311 (SWTJC course) Intro to Speech Communication 3 s.c.h.
- MTH 3302 Probability and Statistics I 3 s.c.h.
- ENGL 3312 Advanced Composition 3 s.c.h.
- Foreign Language 6-8 s.c.h.

Psychology course requirements for a major in Psychology:
- PSYC 2301 (TCCN) Introduction to Psychology 3 s.c.h.
- PSCH 3306 or PSCH 3307 Child Development or Adult Development 3 s.c.h.
- PSCH 3301 or PSCH 4301 Social Psychology or Personality Psychology 3 s.c.h.
- PSCH 4330 or PSCH 3300 Research in Psychology or History of Psych. 3 s.c.h.
- PSCH 4303  Abnormal Psychology  3 s.c.h.
- Additional psychology hours from catalog not used to satisfy other requirements:  15 s.c.h.

Total Psychology course hours required for major:  30 s.c.h.

Requirements for SRSU Rio Grande College Degree:
1. A minimum of 120 semester credit hours;
2. A minimum of 39 semester credit hours of advanced course work;
3. A minimum of 30 semester credit hours with SRSU-RGC; and
4. Cumulative GPA of 2.0 or better; cumulative GPA for major and minor, 2.0 or better.

Note: All psychology majors are strongly encouraged, but not required, to take both PSCH 3306 and 3307; as well as both PSCH 3301 and 4301. Majors are also strongly advised to take ENGL 3312 during their first semester of enrollment at SRSU Rio Grande College.

MINOR
Students must complete a minor of at least eighteen semester credit hours, including a minimum of nine semester credit hours of advanced coursework at SRSU-RGC. A maximum of nine semester credit hours of transfer courses can be used.