

School of Mathematics, Science, and Health Sciences

Dr. Keith Martin, Dean

Departments

- **Biology**
- **Mathematics and Physical Sciences**
- **Health Sciences**

Mathematics, Science, and Health Sciences

Bachelor Degrees

Biology (B.S.)

- Environmental Conservation
- Medical/Molecular Biology

Nursing (B.S.)

Minors

- Biology
- Chemistry

Associate Degrees

Biological Science (A.S.)

Emergency Medical Services (A.A.S.)

Physical Science (A.S.)

- Chemistry
- Geology
- Engineering/Physics/Math

Nursing (A.A.S.)

- Bridge NREMT – Paramedic/LPN to RN

DEPARTMENT OF BIOLOGY
SCHOOL OF MATHEMATICS, SCIENCE, AND HEALTH SCIENCES

Dr. Larry Green, Department Head

Ms. Claudia Glass
Mr. Don Glass
Dr. Sue Katz

Dr. Jae-Ho Kim
Dr. Adele Register

Dr. Patricia Seward
Dr. Craig Zimmermann

MISSION STATEMENT AND PURPOSES

The mission of the Department of Biology at Rogers State University is to support students in their pursuit of knowledge in biology and life science. Our purposes are:

1. To increase the student's critical thinking and reasoning abilities.
2. To increase the student's understanding and appreciation of the biological world, and the ability to apply this understanding in his/her personal and professional life.
3. To increase the student's awareness of the benefits of incorporation of technology into science studies.
4. To increase the student's ability to interpret and understand his/her world.
5. To prepare a student to matriculate into a four-year degree program in math or science-related fields or graduate.
6. To serve as a resource for the community, utilizing the expertise of the faculty.

PROGRAMS OF STUDY

Bachelor of Science

Biology
Option: Environmental Conservation
Option: Medical/Molecular Biology

Minor

Biology

Associate in Science

Biological Science

BACHELOR OF SCIENCE

BIOLOGY

OPTION: ENVIRONMENTAL CONSERVATION (112E)

Under the Bachelor of Science in Biology, there are two emphases: the Medical/Molecular emphasis and the Environmental Conservation emphasis. The four-year program seeks to develop a biologist well founded in either area of emphasis. The student integrates mathematical and physical science concepts into biology. The student uses the scientific method as well as evaluates others' use of this method of inquiry. He/she writes and presents scientific papers and reports. The degree is augmented with individual research and internships for successful postgraduate and professional careers.

REQUIRED HOURS 121

Communications 9
 ENGL 1113 Composition I
 ENGL 1213 Composition II
 SPCH 1113 Speech Communication

Social and Behavioral Sciences..... 9
 History 3
Select from the following:
 HIST 2483 American History to 1877
 HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3
Select from the following:
 ECON 2113 Principles of Macroeconomics
 ECON 2123 Principles of Microeconomics
 PSY 1113 Introduction to Psychology
 SOC 1113 Introduction to Sociology

Science and Mathematics 12
 Physical Science 5
Select from the following:
 * **CHEM 1315 General Chemistry I**
 GEOL 1014 Earth Science
 GEOL 1114 Physical Geology
 GEOL 1124 Physical Geography
 GEOL 1224 Historical Geology
 GEOL 2124 Astronomy
 PHYS 1014 General Physical Science
 PHYS 1114 General Physics I

Biological Science 4

Select from the following:
 BIOL 1114 General Biology
 BIOL 1134 General Environmental Biology
 * **BIOL 1144 General Cellular Biology**

Mathematics 3

Select from the following:
 MATH 1503 Mathematics for Critical Thinking
 * **MATH 1513 College Algebra**
 MATH 1613 Trigonometry
 MATH 1715 Pre-Calculus
 MATH 2264 Analytical Geometry & Calculus I

Humanities 6

Select from the following:
 ART (HUM)1113 Art Appreciation
 COMM (HUM)2413 Theatre Appreciation
 ENGL 2613 Introduction to Literature
 HUM 2113 Humanities I
 HUM 2223 Humanities II
 HUM 2893 Cinema
 MUSC (HUM) 2573 Music Appreciation
 PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:
 BIOL 3104 Plants and Civilization
 ECON 3003 International Economic Issues and Policies
 GEOG 2243 Human Geography
 HIST 2013 World Civilization I
 HIST 2023 World Civilization II
 HUM 3633 Comparative Religion
 LANG 1113 Foundations of World Languages
 NAMS 1143 Native Americans of North America
 NAMS 2503 Cherokee I
 PHIL 1313 Values and Ethics
 POLS 3053 International Relations
 SOC 3213 Minority Groups
 SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

* **Required**

Program Requirements	16	Environmental Conservation	
BIOL 2104 General Botany		Required Support Courses	14
BIOL 2205 General Zoology		CHEM 1415 General Chemistry II	
BIOL 3024 Genetics		CHEM 3125 Organic Chemistry I	
BIOL 4602 Biology Research Methods I		PHYS 1114 General Physics I	
BIOL 4801 Biology Research Methods II			
Environmental Conservation Emphasis	23	Guided Selected Electives	13
BIOL 3004 Field Botany		Guided Electives (BIOL, CHEM, GEOL, MATH, PHYS)	
BIOL 3014 Ecology of Mammals		(Minimum 6 hours of 3000–4000 upper-division courses)	
BIOL 3034 General Ecology		Selected Electives	13
BIOL 3513 Environmental Conservation			
BIOL 4014 Ornithology		Total Credit Hours	121
BIOL 4524 Field Zoology			

BACHELOR OF SCIENCE

BIOLOGY

OPTION: MEDICAL/MOLECULAR (112M)

Under the Bachelor of Science in Biology, there are two emphases: the Medical/Molecular emphasis and the Environmental Conservation emphasis. The four-year program seeks to develop a biologist well founded in either area of emphasis. The student integrates mathematical and physical science concepts into biology. The student uses the scientific method as well as evaluates others' use of this method of inquiry. He/she writes and presents scientific papers and reports. The degree is augmented with individual research and internships for successful postgraduate and professional careers.

REQUIRED HOURS 121

Communications 9

- ENGL 1113 Composition I
- ENGL 1213 Composition II
- SPCH 1113 Speech Communication

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

Select from the following:

- ECON 2113 Principles of Macroeconomics
- ECON 2123 Principles of Microeconomics
- PSY 1113 Introduction to Psychology
(Psychology required for pre-med.)
- SOC 1113 Introduction to Sociology

Science and Mathematics 12

Physical Science 5

Select from the following:

* **CHEM 1315 General Chemistry I**

- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy
- PHYS 1014 General Physical Science
- PHYS 1114 General Physics I

Biological Science 4

Select from the following:

- BIOL 1114 General Biology
- BIOL 1134 General Environmental Biology
- * **BIOL 1144 General Cellular Biology**

Mathematics 3

Select from the following:

- MATH 1503 Mathematics for Critical Thinking
- * **MATH 1513 College Algebra**
- MATH 1613 Trigonometry
- MATH 1715 Pre-Calculus
- MATH 2264 Analytical Geometry & Calculus I

Humanities 6

Select from the following:

- ART (HUM)1113 Art Appreciation
- COMM (HUM)2413 Theatre Appreciation
- ENGL 2613 Introduction to Literature
- HUM 2113 Humanities I
- HUM 2223 Humanities II
- HUM 2893 Cinema
- MUSC (HUM) 2573 Music Appreciation
- PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:

- BIOL 3104 Plants and Civilization
- ECON 3003 International Economic Issues and Policies
- GEOG 2243 Human Geography
- HIST 2013 World Civilization I
- HIST 2023 World Civilization II
- HUM 3633 Comparative Religion
- LANG 1113 Foundations of World Languages
- NAMS 1143 Native Americans of North America
- NAMS 2503 Cherokee I
- PHIL 1313 Values and Ethics
- POLS 3053 International Relations
- SOC 3213 Minority Groups
- SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

* **Required**

Program Core Requirements	16	Medical/Molecular Guided	8
BIOL 2104 General Botany		Selected Electives	
BIOL 2205 General Zoology		BIOL 3000-4000 upper-division biology courses	
BIOL 3024 Genetics		Selected Electives	12
BIOL 4602 Biology Research Methods I		Total Credit Hours	121
BIOL 4801 Biology Research Methods II			
Medical/Molecular Emphasis	16		
BIOL 3204 Physiology			
BIOL 3504 Molecular Cell Biology			
BIOL 3525 Biology of Microorganisms			
BIOL 4153 Molecular Genetics			
Medical/Molecular Required	27		
Support Courses			
CHEM 1415 General Chemistry II			
CHEM 3125 Organic Chemistry I			
CHEM 3225 Organic Chemistry II			
CHEM 3404 Biochemistry			
PHYS 1114 General Physics I			
PHYS 1214 General Physics II			

A minor requires completion of at least 18-24 designated credit hours of course work outside the student's major field, including a minimum of 9 upper-division credit hours, and may have a required core. The same courses may not be used to fulfill the requirements for both a major and a minor.

MINOR IN BIOLOGY (003B)

Requirements **12-14**

BIOL 1144 General Cellular Biology

and two of the following three courses:

BIOL 2104 General Botany

BIOL 2205 General Zoology

BIOL 2124 Microbiology

or

BIOL 3525 Biology of Microorganisms

Electives **9**

Nine upper-division hours in Biology

Recommendation for Physical Science requirement in General Education:

CHEM 1315 Chemistry I

Total Credit Hours **21-23**

Not open to students choosing Bachelor of Science in Biology degree.

The same courses may not be used to fulfill the requirements for both a major and a minor.

ASSOCIATE IN SCIENCE BIOLOGICAL SCIENCE (003)

The Associate in Science in Biological Science consists of the general education curriculum and the supporting science courses. In support of the mission of the University, the school, and the department, the degree seeks to develop a student with a broad and diverse background in science and general education.

REQUIRED HOURS 64

Communications 9

- ENGL 1113 Composition I
- ENGL 1213 Composition II
- SPCH 1113 Speech Communication

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

Select from the following:

- ECON 2113 Principles of Macroeconomics
- ECON 2123 Principles of Microeconomics
- PSY 1113 Introduction to Psychology
- SOC 1113 Introduction to Sociology

Science and Mathematics 12

Physical Science 5

Select from the following:

* **CHEM 1315 General Chemistry I**

- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy
- PHYS 1014 General Physical Science
- PHYS 1114 General Physics I

Biological Science 4

Select from the following:

- BIOL 1114 General Biology
- BIOL 1134 General Environmental Biology

* **BIOL 1144 General Cellular Biology**

Mathematics 3

Select from the following:

- MATH 1503 Mathematics for Critical Thinking
- * **MATH 1513 College Algebra or higher**
- MATH 1613 Trigonometry
- MATH 1715 Pre-Calculus
- MATH 2264 Analytical Geometry and Calculus I

Humanities 6

Select from the following:

- ART (HUM)1113 Art Appreciation
- COMM (HUM)2413 Theatre Appreciation
- ENGL 2613 Introduction to Literature
- HUM 2113 Humanities I
- HUM 2223 Humanities II
- HUM 2893 Cinema
- MUSC (HUM) 2573 Music Appreciation
- PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:

- BIOL 3104 Plants and Civilization
- ECON 3003 International Economic Issues and Policies
- GEOG 2243 Human Geography
- HIST 2013 World Civilization I
- HIST 2023 World Civilization II
- HUM 3633 Comparative Religion
- LANG 1113 Foundations of World Languages
- NAMS 1143 Native Americans of North America
- NAMS 2503 Cherokee I
- PHIL 1313 Values and Ethics
- POLS 3053 International Relations
- SOC 3213 Minority Groups
- SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

*** Required**

Program Requirements 18

- BIOL (Any course 2000 or higher)
- BIOL 2104 General Botany
- BIOL 2205 General Zoology
- CHEM 1415 General Chemistry II

Support and Related 4

Select from the following:

- BIOL (Any course 2000 or higher)
- CHEM 3125 Organic Chemistry I
- CHEM 3225 Organic Chemistry II
- MATH 2843 Statistics
- PHYS 1114 General Physics I
- PHYS 1214 General Physics II

Total Credit Hours 64

**DEPARTMENT OF MATHEMATICS AND PHYSICAL SCIENCES
SCHOOL OF MATHEMATICS, SCIENCE, AND HEALTH SCIENCES**

Dr. Kirk Voska, Interim Department Head

Dr. Djalalidin Djayanbaev
Mr. Larry Elzo
Dr. Doug Grenier
Ms. Roya Namavar

Mr. Sam Richardson
Dr. Katarzyna Roberts
Dr. Patrick Seward

Ms. Evalon St. John
Dr. Min Soe

MISSION STATEMENT AND PURPOSES

The mission of the Department of Mathematics and Physical Sciences at Rogers State University is to support students in their pursuit of knowledge in mathematics and physical science. Our purposes are:

1. To increase the student's critical thinking and reasoning abilities.
2. To increase the student's understanding and appreciation of the physical world, and the ability to apply this understanding in his/her personal and professional life.
3. To increase the student's awareness of the benefits of incorporation of technology into Science and Math studies.
4. To increase the student's ability to interpret and understand his/her world mathematically.
5. To prepare a student to matriculate into a four-year degree program in math or science-related fields or graduate.
6. To serve as a resource for the community, utilizing the expertise of the faculty.

PROGRAMS OF STUDY

Minor

Chemistry

Associate in Science

Physical Science

Option: Chemistry

Option: Engineering/Physics/Math

Option: Geology

A minor requires completion of at least 18-24 designated credit hours of course work outside the student's major field, including a minimum of 9 upper-division credit hours, and may have a required core. The same courses may not be used to fulfill the requirements for both a major and a minor.

MINOR IN CHEMISTRY (028C)

Requirements **20**

CHEM 1315 General Chemistry I

CHEM 1415 General Chemistry II

CHEM 3125 Organic Chemistry I

CHEM 3225 Organic Chemistry II

Total Credit Hours **20**

The same courses may not be used to fulfill the requirements for both a major and a minor.

ASSOCIATE IN SCIENCE

PHYSICAL SCIENCE

OPTION: CHEMISTRY (028C)

The Associate in Science in Physical Science with an option in Chemistry is designed to provide the student with the first two years of general requirements.

REQUIRED HOURS 65

Communications 9

- ENGL 1113 Composition I
- ENGL 1213 Composition II
- SPCH 1113 Speech Communication

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

Select from the following:

- ECON 2113 Principles of Macroeconomics
- ECON 2123 Principles of Microeconomics
- PSY 1113 Introduction to Psychology
- SOC 1113 Introduction to Sociology

Science and Mathematics 12

Physical Science 5

Select from the following:

* **CHEM 1315 General Chemistry I**

- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy
- PHYS 1014 General Physical Science
- PHYS 1114 General Physics I

Biological Science 4

Select from the following:

- BIOL 1114 General Biology
- BIOL 1134 General Environmental Biology
- BIOL 1144 General Cellular Biology

Mathematics 3

Select from the following:

- MATH 1503 Mathematics for Critical Thinking
- MATH 1513 College Algebra or higher
- MATH 1613 Trigonometry
- MATH 1715 Pre-Calculus
- MATH 2264 Analytical Geometry and Calculus I

Humanities 6

Select from the following:

- ART (HUM)1113 Art Appreciation
- COMM (HUM)2413 Theatre Appreciation
- ENGL 2613 Introduction to Literature
- HUM 2113 Humanities I
- HUM 2223 Humanities II
- HUM 2893 Cinema
- MUSC (HUM) 2573 Music Appreciation
- PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:

- BIOL 3104 Plants and Civilization
- ECON 3003 International Economic Issues and Policies
- GEOG 2243 Human Geography
- HIST 2013 World Civilization I
- HIST 2023 World Civilization II
- HUM 3633 Comparative Religion
- LANG 1113 Foundations of World Languages
- NAMS 1143 Native Americans of North America
- NAMS 2503 Cherokee I
- PHIL 1313 Values and Ethics
- POLS 3053 International Relations
- SOC 3213 Minority Groups
- SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

*** Required**

Program Requirements 12-13

- CHEM 1415 General Chemistry II
- MATH 1613 Trigonometry or
- MATH 2364 Analytical Geometry and Calculus II
- PHYS 1114 General Physics I or
- PHYS 2015 Engineering Physics I

Support and Related 10

Select from the following:

- CHEM 2515 Environmental Chemistry
- CHEM 3125 Organic Chemistry I
- CHEM 3225 Organic Chemistry II

Total Credit Hours 65

ASSOCIATE IN SCIENCE
PHYSICAL SCIENCE
OPTION: ENGINEERING/PHYSICS/MATH (028E)

The Associate in Science in Physical Science with an option in Engineering/Physics/Math is designed to give the student a broad but intense background in engineering, physics, and math.

REQUIRED HOURS 65

Communications 9

- ENGL 1113 Composition I
- ENGL 1213 Composition II
- SPCH 1113 Speech Communication

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

Select from the following:

- ECON 2113 Principles of Macroeconomics
- ECON 2123 Principles of Microeconomics
- PSY 1113 Introduction to Psychology
- SOC 1113 Introduction to Sociology

Science and Mathematics 13

Physical Science 5

Select from the following:

* **CHEM 1315 General Chemistry I**

- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy
- PHYS 1014 General Physical Science
- PHYS 1114 General Physics I

Biological Science 4

Select from the following:

- BIOL 1114 General Biology
- BIOL 1134 General Environmental Biology
- BIOL 1144 General Cellular Biology

Mathematics 4

Select from the following:

- MATH 1503 Mathematics for Critical Thinking
- MATH 1513 College Algebra
- MATH 1613 Trigonometry
- MATH 1715 Pre-Calculus

* **MATH 2264 Analytical Geometry and Calculus I**

Humanities 6

Select from the following:

- ART (HUM)1113 Art Appreciation
- COMM (HUM)2413 Theatre Appreciation
- ENGL 2613 Introduction to Literature
- HUM 2113 Humanities I
- HUM 2223 Humanities II
- HUM 2893 Cinema
- MUSC (HUM) 2573 Music Appreciation
- PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:

- BIOL 3104 Plants and Civilization
- ECON 3003 International Economic Issues and Policies
- GEOG 2243 Human Geography
- HIST 2013 World Civilization I
- HIST 2023 World Civilization II
- HUM 3633 Comparative Religion
- LANG 1113 Foundations of World Languages
- NAMS 1143 Native Americans of North America
- NAMS 2503 Cherokee I
- PHIL 1313 Values and Ethics
- POLS 3053 International Relations
- SOC 3213 Minority Groups
- SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

***Required**

Program Requirements 12-13

- CHEM 1415 General Chemistry II
- MATH 1613 Trigonometry or
- MATH 2364 Analytical Geometry and Calculus II
- PHYS 1114 General Physics I or
- PHYS 2015 Engineering Physics I

Support and Related 10

Select five credit hours from the following:

- MATH 2364 Analytical Geometry and Calculus II
- MATH 2464 Analytical Geometry and Calculus III
- MATH 2843 Statistics
- MATH 3113 Differential Equations
- PHYS 2115 Engineering Physics II

Total Credit Hours 65

ASSOCIATE IN SCIENCE

PHYSICAL SCIENCE

OPTION: GEOLOGY (028G)

The Associate in Science in Physical Science with an option in Geology is designed to provide the student with the first two years of general requirements.

REQUIRED HOURS 62

Communications 9

- ENGL 1113 Composition I
- ENGL 1213 Composition II
- SPCH 1113 Speech Communication

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

Select from the following:

- ECON 2113 Principles of Macroeconomics
- ECON 2123 Principles of Microeconomics
- PSY 1113 Introduction to Psychology
- SOC 1113 Introduction to Sociology

Science and Mathematics 11

Physical Science 4

Select from the following:

- CHEM 1315 General Chemistry I
- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy
- PHYS 1014 General Physical Science
- PHYS 1114 General Physics I

Biological Science 4

Select from the following:

- BIOL 1114 General Biology
- BIOL 1134 General Environmental Biology
- BIOL 1144 General Cellular Biology

Mathematics 3

Select from the following:

- MATH 1503 Mathematics for Critical Thinking
- MATH 1513 College Algebra or higher
- MATH 1613 Trigonometry
- MATH 1715 Pre-Calculus
- MATH 2264 Analytical Geometry and Calculus I

Humanities 6

Select from the following:

- ART (HUM)1113 Art Appreciation
- COMM (HUM)2413 Theatre Appreciation
- ENGL 2613 Introduction to Literature
- HUM 2113 Humanities I
- HUM 2223 Humanities II
- HUM 2893 Cinema
- MUSC (HUM) 2573 Music Appreciation
- PHIL 1113 Introduction to Philosophy

Global Studies 3

Select from the following:

- BIOL 3104 Plants and Civilization
- ECON 3003 International Economic Issues and Policies
- GEOG 2243 Human Geography
- HIST 2013 World Civilization I
- HIST 2023 World Civilization II
- HUM 3633 Comparative Religion
- LANG 1113 Foundations of World Languages
- NAMS 1143 Native Americans of North America
- NAMS 2503 Cherokee I
- PHIL 1313 Values and Ethics
- POLS 3053 International Relations
- SOC 3213 Minority Groups
- SPAN 1113 Beginning Spanish I

Elective 3

Select three additional hours from the courses listed above and not previously selected.

Program Requirements 12-13

- CHEM 1415 General Chemistry II
- MATH 1613 Trigonometry or
- MATH 2364 Analytical Geometry and Calculus II
- PHYS 1114 General Physics I or
- PHYS 2015 Engineering Physics I

Support and Related 8

Select two from the following:

- GEOL 1014 Earth Science
- GEOL 1114 Physical Geology
- GEOL 1124 Physical Geography
- GEOL 1224 Historical Geology
- GEOL 2124 Astronomy

Total Credit Hours 62

**DEPARTMENT OF HEALTH SCIENCES
SCHOOL OF MATHEMATICS, SCIENCE AND HEALTH SCIENCES**

Ms. Nancy Diede, Department Head

Ms. Kay Bolding	Ms. Pamela Fowler	Mr. Mike Miller	Ms. LeAnn (Marsha) Sipes
Mr. Larry Brewer	Dr. William Hart	Mr. Clem Ohman	Ms. Karen Smith
Ms. George Ann Daniels	Ms. Carla Lynch	Ms. Kathy Sims	Ms. Beverly Wise
Ms. Helen Farrar			

MISSION STATEMENT AND PURPOSES

The Department of Health Sciences is one of eleven academic departments at Rogers State University and supports the mission of Rogers State University. The department mission is to prepare students to achieve personal and professional goals and to educate safe and competent beginning practitioners of selected health fields. The department also prepares students majoring in other fields with health courses to support their degrees.

The faculty is committed to excellence in teaching and student service. Learning is best accomplished by providing students with accurate and reliable information, opportunities for individualized learning experiences, and guidance and direction through supportive resources. The teacher-learner relationship is enhanced when accountabilities and expected outcomes are clear. Students are supported and guided by the faculty to become active participants in learning in order to achieve professional and personal goals. The Health Sciences faculty believes that scientific reasoning and critical thinking are reflected as clinical judgment.

The purposes of the RSU Health Sciences Department mission are to:

1. Provide a bachelor degree, associate degrees, and educational opportunities for students, both traditional and nontraditional.
2. Provide opportunities for students to demonstrate competence in written and oral communications, scientific reasoning, and critical thinking that emphasizes qualitative as well as quantitative skills.
3. Promote and encourage a positive academic climate with students, community, faculty, and staff for instruction and communication.

PROGRAMS OF STUDY

Bachelor of Science

Nursing

Associate in Applied Science

Emergency Medical Services

Nursing

Option: Bridge NREMT-Paramedic/LPN to RN

BACHELOR OF SCIENCE NURSING (118)

The Bachelor of Science in Nursing, specifically designed for the Registered Nurse, provides an opportunity for any licensed registered nurse educated at the associate degree or diploma level to achieve academic and personal goals and to develop stronger clinical reasoning and analytical skills to advance their careers. The Bachelor of Science in Nursing program is a candidate for accreditation through the National League for Nursing Accreditation Commission.

REQUIRED HOURS 124

Communications 9
 ENGL 1113 Composition I
 ENGL 1213 Composition II
 SPCH 1113 Speech Communication

Social and Behavioral Sciences 9
 History 3
Select from the following:
 HIST 2483 American History to 1877
 HIST 2493 American History since 1877
 POLS 1113 American Federal Government 3
 Social Science 3

Select from the following:
 ECON 2113 Principles of Macroeconomics
 ECON 2123 Principles of Microeconomics
 *PSY 1113 Introduction to Psychology
 SOC 1113 Introduction to Sociology

Science and Mathematics 12
 Physical Science 5

Select from the following:
 * **CHEM 1315 General Chemistry I**
 GEOL 1014 Earth Science
 GEOL 1114 Physical Geology
 GEOL 1124 Physical Geography
 GEOL 1224 Historical Geology
 GEOL 2124 Astronomy
 PHYS 1014 General Physical Science
 PHYS 1114 General Physics I

Biological Science 4
Select from the following:

BIOL 1114 General Biology
 BIOL 1134 General Environmental Biology
 * **BIOL 1144 General Cellular Biology**

Mathematics 3
Select from the following:
 MATH 1503 Mathematics for Critical Thinking
 * **MATH 1513 College Algebra**
 MATH 1613 Trigonometry
 MATH 1715 Pre-Calculus
 MATH 2264 Analytical Geometry & Calculus I

Humanities 6
Select from the following:
 ART (HUM)1113 Art Appreciation

COMM (HUM) 2413 Theatre Appreciation
 ENGL 2613 Introduction to Literature
 HUM 2113 Humanities I
 HUM 2223 Humanities II
 HUM 2893 Cinema
 MUSC (HUM) 2573 Music Appreciation
 PHIL 1113 Introduction to Philosophy

Global Studies 3
Select from the following:

BIOL 3104 Plants and Civilization
 ECON 3003 International Economic Issues and Policies
 GEOG 2243 Human Geography
 HIST 2013 World Civilization I
 HIST 2023 World Civilization II
 HUM 3633 Comparative Religion
 LANG 1113 Foundations of World Languages
 NAMS 1143 Native Americans of North America
 NAMS 2503 Cherokee I
 PHIL 1313 Values and Ethics
 POLS 3053 International Relations
 SOC 3213 Minority Groups
 SPAN 1113 Beginning Spanish I

Elective 3
Select three additional hours from the courses listed above and not previously selected.

(42 credit hours)

***Required**

Program Core Requirements 59

Professional Speciality – 29 hours
 NURS 4003 Professional Nursing Role
 NURS 4013 Health Assessment/Promotion
 NURS 4015 Family Health Nursing
 NURS 4113 Rural Nursing
 NURS 4213 Nursing Science and Research
 NURS 4205 Leadership and Management in Nursing
 NURS 4223 Professional Nursing Practice Seminar
 NURS 4225 Advanced Therapeutic Interventions

Support Course Requirements 23

BIOL 2124 Microbiology
 BIOL 3204 Physiology
 HLSC 3323 Pathophysiology for the Health Professions
 MATH 2843 Statistics
 NUTR Nutrition Elective
 PHAR 2113 Fundamentals of Pharmacology
 PSY 3033 Developmental Psychology

Total Credit Hours 124

Students enrolled in developmental courses must complete ORIE 1151 - The College Experience course within the first 24 semester hours attempted.

ASSOCIATE IN APPLIED SCIENCE EMERGENCY MEDICAL SERVICES (094E)

The Rogers State University Emergency Medical Services Program began in 1991 and is approved by the Oklahoma State Department of Health-Emergency Medical Services Division. The Emergency Medical Services Program exists to provide selected students with educational opportunities in the classroom and in clinical settings, and to prepare them to enter the profession of Emergency Medical Services. Upon successful program completion, graduates in the curriculum are eligible to take the National Registry Examination to become licensed as a Paramedic. PHTLS, ACLS, and PALS are included. The curriculum provides a collegiate-level educational experience well beyond the minimum requirements of licensure agencies. Admission is competitive.

Program Prerequisites

1. Basic Emergency Medical Technician (EMS 1108 or licensure)
2. Computer Proficiency: Successful completion of institutional computer science proficiency exam or CS 1113 Microcomputer Applications.

REQUIRED HOURS 69

Communications 6

- ENGL 1113 Composition I
- ENGL 1213 Composition II

Social and Behavioral Sciences..... 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

- PSY 1113 Introduction to Psychology

Science and Mathematics 4

Biological Science

- BIOL 1144 General Cellular Biology

Orientation 1

- ORIE 1151 The College Experience

Program Requirements 46

- EMS 1003 Anatomy and Physiology for Pre-hospital Providers
- EMS 1104 Introduction to EMS and Patient Assessment
- EMS 1113 Pharmacology for Pre-hospital Providers
- EMS 1124 Advanced Skills in Emergency Medical Services
- EMS 1203 Field Operations
- EMS 1213 ECG Interpretation
- EMS 1225 Trauma Assessment and Management
- EMS 2104 Medical Emergencies
- EMS 2112 Special Needs in Emergency Medical Services
- EMS 2125 Cardiac/Respiratory Emergencies
- EMS 2202 OB/GYN Emergencies
- EMS 2224 Pediatric Emergencies
- EMS 2244 EMS Leadership

Support and Related 3

- HLSC 1233 Medical Terminology

Total Credit Hours 69

ASSOCIATE IN APPLIED SCIENCE NURSING (054)

The Nursing Program began in 1981 and is approved by the Oklahoma Board of Nursing and accredited by the National League for Nursing Accrediting Commission. The degree consists of a 72 credit-hour program and can be completed within five semesters by a full-time student.

The Nursing Program exists to provide selected students with educational opportunities in the classroom and in clinical settings in northeastern Oklahoma, and to prepare them to enter the profession of nursing upon graduation. The graduate is prepared at an entry-level of nursing practice and is eligible to take the National Council Licensure Examination to become a Registered Nurse. Admission is competitive.

REQUIRED HOURS 72

Communications 6
 ENGL 1113 Composition I..... 3
 ENGL 1213 Composition II..... 3

Social and Behavioral Sciences..... 9
 History 3
Select from the following:
 HIST 2483 American History to 1877
 HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3
 * **PSY 1113 Introduction to Psychology**

Humanities 3
 * **PHIL 1213 Introduction to Logic**

Science and Mathematics 4
 Biological Science
 * **BIOL 1144 General Cellular Biology**

Orientation 1
 ORIE 1151 The College Experience

* **Required**

Program Requirements 34

NURS 1111 Nursing Concepts
 NURS 1117 Foundations of Nursing Practice
 NURS 1191 Dosage Calculation
 NURS 1228 Therapeutic Nursing Interventions I
 NURS 2138 Therapeutic Nursing Interventions II
 NURS 2223 Transition to Nursing Practice
 NURS 2246 Nursing in a Complex Environment

Support and Related 15

BIOL 2124 Microbiology
 BIOL 2215 Anatomy and Physiology
 NUTR 1113 Introduction to Nutrition
 PHAR 2113 Fundamentals of Pharmacology

Total Credit Hours 72

ASSOCIATE IN APPLIED SCIENCE

NURSING

OPTION: BRIDGE NREMT-PARAMEDIC/LPN TO RN (054B)

Rogers State University provides an option to facilitate the transition from NREMT-Paramedic/LPN to RN. The program is designed to provide a solid foundation, training, and experience that meets all the recognized national and state accreditation guidelines. Students are required to pass equivalency nursing examinations for advanced standing. Graduates are eligible to take the National Council Licensure Examination to become a Registered Nurse. The Nursing Program is approved by the Oklahoma Board of Nursing and accredited by the National League for Nursing Accrediting Commission. Admission is competitive.

REQUIRED HOURS 65

Communications 6

- ENGL 1113 Composition I
- ENGL 1213 Composition II

Social and Behavioral Sciences 9

History 3

Select from the following:

- HIST 2483 American History to 1877
- HIST 2493 American History since 1877

POLS 1113 American Federal Government 3

Social Science 3

- * PSY 1113 Introduction to Psychology

Humanities 3

Philosophy

- * PHIL 1213 Introduction to Logic

Science and Mathematics 4

- * BIOL 1144 General Cellular Biology

Orientation 1

- ORIE 1151 The College Experience

***Required**

Program Requirements 27

- NURS 1111 Nursing Concepts
- NURS 1191 Dosage Calculation
- NURS 1433 Bridge to Registered Nursing
- NURS 2138 Therapeutic Nursing Interventions II
- NURS 2223 Transition to Nursing Practice
- NURS 2246 Nursing in a Complex Environment
- NURS 2005 Basic Patient Care

Support and Related 15

- BIOL 2124 Microbiology
- BIOL 2215 Anatomy and Physiology
- NUTR 1113 Introduction to Nutrition
- PHAR 2113 Fundamentals of Pharmacology

Total Credit Hours 65