

# Pre-Engineering

Rhodes offers two pre-engineering programs: a dual degree program with Washington University (St. Louis), and a B.S-M.S. degree program in Biomedical Engineering with the University of Tennessee and University of Memphis.

## **Contact Person:**

Dr. Brent Hoffmeister  
901-843-3913

## **Dual Degree Program with Washington University:**

Students in this program will attend Rhodes for 3-4 years and then Washington University for 2 years of engineering study. Upon completion of this program students will receive a bachelor's degree from Rhodes and a second bachelor's degree in engineering from Washington University. Required Rhodes courses for this program are the following:

1. Rhodes general degree requirements plus an additional Washington University requirement in the Humanities and Social Sciences.
2. The following core math and science courses:
3.
  - Mathematics 121, 122, 223, 251
  - Chemistry 111, 112, 111L, 112L
  - Physics 111, 112, 111L, 112L
  - Computer Science 141
4. Additional courses in chemistry, geology, mathematics or physics depending on the course of study to be pursued at Washington University. These are listed in the "Planning a Degree" section of the College Catalog.

## **B.S.-M.S. Degree Program with the Joint Program in Biomedical Engineering at the University of Tennessee and University of Memphis:**

Students in this program will attend Rhodes for 3 years majoring in chemistry or physics, and then study biomedical engineering at the University of Tennessee and University of Memphis for 2 years. Upon completion of this program students will receive a B.S. degree from Rhodes and a M.S. degree in engineering from the University of Tennessee and University of Memphis Joint Program in Biomedical Engineering. Required courses for this program are the following:

1. Rhodes general degree requirements.

2. The following core math and science courses
  - Mathematics 121, 122, 223, 251
  - Chemistry 111, 112, 111L, 112L
  - Physics 111, 112, 111L, 112L
  - Computer Science 141, 142
3. Additional courses depending on the specific major chosen at Rhodes
  - Chemistry Major** - Chemistry 211-212, 211L, 212L, 311-312, 311L, 312L, 385-386
  - Physics 304\*, 305\*
  - Physics Major** - Physics 211, 211L
  - At least 2 approved courses at the 300-level or higher\*
  - (\* indicates that equivalent courses may be taken instead through the joint program in biomedical engineering)

**Recommended GPA:**

A cumulative GPA of 3.0 or better, both overall and in the science and mathematics courses.

**Additional Information:**

Students considering either program should arrange an appointment with Professor Hoffmeister as early as possible in their Rhodes career.

## Pre-Law

Rhodes does not have a pre-law program per se. Students considering careers in law can major in any subject, preferably one that they enjoy and in which they do well.

**Contact Person:**

Dr. Marcus Pohlmann  
901-843-3843

**Recommended Courses:**

The Association of American Law Schools recommends that a student's undergraduate education fulfill the following objectives:

1. The student should learn to express thoughts clearly and concisely, both orally and in writing.
2. The student should develop creative power in thinking as well as logical reasoning about research, fact completeness, and fact differentiation.

3. The student should acquire a critical understanding of human institutions and values with which law deals.

While there are no required courses, any student considering law school should select some courses that emphasize language precision and the careful analysis of language such as English Literature, Philosophy, Political Philosophy, or Constitutional Law. Forensic experiences, including public speaking, theater, mock trial, and the like, are also highly recommended.

**Taking the LSAT:**

The Law School Aptitude Test (LSAT) should be taken either in the summer before the senior year or October of the senior year.

**Recommended GPA:**

At least 3.5 for a good law school. Possibly a 3.0 for a lesser school. Students with GPA's between 3.0 and 3.5 may improve their chances if they score well on the LSAT (at least the 50th percentile).

**Additional Information:**

Any student considering a career in law should arrange a "pre-law appointment" with Professor Pohlmann as soon as possible, but preferably no later than spring of the junior year.

## Health Professions

Students interested in careers in Health Professions may include those intending to pursue a career in Clinical Psychology, Dentistry, Medicine, Physical Therapy, or any other professional medical sector. Rhodes does not have a pre-medical (or other pre-professional) major. Students preparing for a health career may major in any subject; however, most do major in biology or chemistry. There are certain courses that are required for admission to health professional schools and to prepare for the entrance exams, which are typically taken in the spring of the junior year or the fall of the senior year. Students who are considering a career in a health field should contact the appropriate health professions advisor.

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**CLINICAL PSYCHOLOGY****Contact Person:**

Dr. Anita Davis  
901-843-3989

**Required Courses:**

- Psychology 150 (Foundational Issues)
- Psychology 200 (Research Methods and Statistics)
- Psychology 211 (Quantitative Aspects of Psychology)
- Advanced Methods
- Theory Application and Research (seven courses)

**Recommended Courses:**

- Abnormal Psychology
- Counseling Psychology
- Personality Psychology
- Psychological Assessment

**Recommended GPA:**

- A cumulative GPA of at least 3.500

**Also Recommended:**

- At least one year of research experience
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**DENTISTRY****Contact Person:**

Dr. Alan Jaslow  
901-843-3602

**Required Courses:**

- Biology 130 and 140 with laboratories, or the equivalent in AP credit
- Chemistry 111; 112 or 122; 211; and 212 with laboratories
- Physics 111 and 112 with laboratories
- Physics is not a part of the DAT, so it may be taken in the senior year.
- English - Usually two courses in either composition or literature

**Recommended Courses:**

- Advanced Biology and/or Biochemistry
- Internship in Biology (dentistry)

**Recommended GPA:**

- Minimum GPA is 2.50; a 3.00 is recommended.
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**MEDICINE****Contact Person:**

Dr. Alan Jaslow  
901-843-3602

**Required Courses:**

- Biology 130 and 140, with laboratories - Should be completed before the senior year.  
**NOTE:** *Some schools require one or two additional semesters of biology. The student should check with the school in question.*
- Chemistry 111, 112 or 122, 211, and 212, with laboratories - Should be completed before the senior year.
- Physics 111 or 109 and 110 or 112 with laboratories - Should be completed before the senior year.
- Math - The requirement ranges from none to one year of calculus.
- English - Two or three courses are generally required.

**Recommended Courses:**

- Advanced Biology and Biochemistry

**Recommended GPA:**

- Cumulative GPA of at least 3.40
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**PHYSICAL THERAPY, OPTOMETRY, NURSING, PHARMACY, ETC.****Contact Person:**

[Dr. Alan Jaslow](#)

901-843-3602

**Required Courses:**

- The requirements for these fields are varied. Interested students should consult the adviser.

## Pre-Ministry

Rhodes has a supportive, advisory pre-ministry program for students who are considering seminary or divinity school following graduation, and for those who are exploring vocations in ministry and church-related professions. Many Rhodes students have a broad-based understanding of ministry, and may wish to explore the pre-ministry program in preparation for careers in pastoral ministry, global service, medicine, social work, teaching, counseling, or law. Students interested in attending seminary or divinity school as preparation for a career in teaching or research should contact any member of the Department of Religious Studies.

**Contact Persons:**

Students considering a career in ministry should speak with Steve Haynes, Associate Professor of Religious Studies (901-843-3583) and Rev. Billy Newton, Rhodes Chaplain (901-843-3849) as soon as possible in their undergraduate careers. By registering with the Preparation for Ministry program, students will have access to advisers, supervised ministry opportunities, and a supportive structure for exploring vocations in ministry.

Because requirements for ordination to the ministry vary greatly among religious denominations, students interested in ordination should also contact a church representative to familiarize themselves with these requirements.

**Preparation:**

There is no "required curriculum" for students considering the ministry. Traditionally, however, a well-rounded curriculum in the liberal arts and sciences has been the standard preparation for seminary or divinity school. In addition to the Basic Humanities Requirement ("Search" or "Life"), these courses in Language, History, Philosophy, Religious Studies, and Psychology can provide a particularly strong background for seminary or divinity school.

Although these are not required courses for pre-ministry, a selection of these courses, along with Search or Life, will provide a good foundation for advanced theological education:

- Greek & Roman Studies 101-102 Elementary Greek
- Hebrew 101-102 Biblical Hebrew

- History 343 The Civil Rights Movement
- Philosophy 350 Philosophy of Religion
- Political Science 214 Modern Ideologies
- Psychology 311 Counseling Psychology
- Religious Studies 210 History of Christian Thought
- Religious Studies 211 Contemporary Theology
- Religious Studies 214 Early Christian Literature
- Religious Studies 251 Religion in America
- Religious Studies 255 Living Religions
- Religious Studies 460 Chaplaincy Internship

**Languages:**

Hebrew and Greek are required at some seminaries in order to study the original biblical texts. Latin, Arabic, Spanish, French, and German may be necessary for certain areas of advanced study.

**Experiential Education and Supervised Ministry:**

Students should also gain experience in urban studies or urban ministry, faith-based social services, international programs, and local church ministries through internships and volunteer programs. Contact the Chaplain's office for supervised ministry opportunities and other church-related internships.

**Servant Leadership and Seminary Inquiry:**

Pre-ministry students should enroll in one or more Servant Leadership courses through the Chaplain's Office, in order to explore the integration of faith, service and learning and to consider issues of vocation and ministry. Seminaries, divinity schools and global mission recruiters frequently visit the Rhodes campus. Because there are a variety of theological degrees (M.Div, MTS, MA, D.Min, Th.D, Ph.D) and combined degrees (with social work, law, public policy, or counseling) students should consult with their advisers about the graduate degree best suited to their vocation. During Junior and Senior years, pre-ministry students have opportunities for weekend visits to theological schools to more closely consider graduate study and the discernment of vocation.

**Taking the GRE and Applying to Graduate School:**

Most seminaries and divinity schools attended by Rhodes graduates are accredited by the Association of Theological Schools and will require the Graduate Record Exam (GRE).

Undergraduate GPA requirements for admission are at least 2.50 for the M.Div. and higher for research degree programs. Rhodes students have almost 100% acceptance rate at major seminaries and theological schools. Scholarships for attending seminary, divinity school, or graduate school in religion are generally competitive and based on undergraduate achievement. In recent years, Rhodes students have been accepted and offered significant scholarships by Columbia Theological Seminary, Princeton Theological Seminary, Vanderbilt Divinity School, Emory University, Candler School of Theology, Union Theological Seminary in New York, Harvard Divinity School, Yale Divinity School, Virginia Theological Seminary, McCormick Theological Seminary, and Chicago Divinity School.

## Pre-Veterinary

### **Contact Person:**

Dr. Alan Jaslow  
901-843-3602

### **Required Courses:**

- Biology 130-140 with labs
- Chemistry 111-112 (or 122), 211-212 with labs
- Physics 109-110 or 111-112 with labs
- Upper level biology or chemistry courses

Requirements vary by school, but most require from one to five additional upper level courses, some with specified courses and others recommended. Consult with the pre-veterinary adviser and the prospective program.

### **Recommended Courses:**

- Recommendations beyond required class work varies by program. Consult with the pre-veterinary adviser and the prospective program.

### **Pre-Application Veterinary Medicine Experience:**

- All programs strongly recommend, and for all practical purposes require, hands-on experience. This can be as an employee, volunteer, or intern (such as with our internship program).

### **Recommended GPA:**

- These vary by program and with residency. Consult the pre-veterinary adviser and the prospective program.

**Additional Information:**

- The American Association of Veterinary Colleges links to specific veterinary schools and their requirements. It also includes information and links related to required admissions tests, VCAT or GRE, as well as information about the national application program (VMCAS) required by some schools.

## Education Professions

**Education Program**

Rhodes College offers a Minor in Education which consists of a combination of courses in education, psychology, and supporting fields. The college does not offer a teacher licensure or certification program but rather offers a curriculum which is designed to:

- provide a basic but thorough understanding and appreciation for the American system of education as well as the teaching and learning process
- allow students to design a course selection plan to fit their desired teaching area (elementary, middle, or high school; counseling or school psychology; higher education, etc.)
- provide a series of field experiences in the diverse community of Memphis and the Mid-South (it is expected that these experiences will help students fully determine their interest in the education profession)
- prepare interested students with a smooth transition into graduate schools of education and if desired, professional licensure programs at the graduate level

**The Minor in Education requires the following courses:**

Education (10-12 credits):

201 - Foundations of Education (4 credits)

355 - Principles of Curriculum and Instruction (4 credits)

*Choice among:*

451 - Directed Research in Education (2 or 4 credits),

460 - Internship in Education (2 or 4 credits), or an approved study abroad experience in education

Psychology (6 credits):

222 - Educational Psychology (3 credits)

and one additional course selected from the following: 150, 230, 311, 323, 326, 327, or 329.

Supporting Field Courses (6 credits):

Phil 270 - Philosophy of Education (3 credits)

And one course selected from AnSo 205 or 300; Hist 244; Phil 206 or 304; RS 232

### **Licensure to Teach**

Licensure to teach is a function of state government, and programs offered by colleges and universities are designed to meet requirements of their home state. It is recommended that graduates of baccalaureate level institutions seeking licensure to teach enroll in programs which are accredited by the National Council for the Accreditation of Teacher Education (NCATE). A number of these graduate programs will place the student in a full time teaching position (with salary) during the time of enrollment.

Also, because of a national shortage of teachers (in certain content fields and in certain population areas), non-traditional routes for licensure are available in many states. Regardless of the route taken for licensure, applicants for teaching licensure are required to take examinations in both their content field as well as in pedagogy.

Finally, licensure to teach is generally a condition of employment for public schools and most non-public schools. However, some non-public schools will employ persons to teach without licensure. Other options to teach and possibly earn licensure exist with organizations such as Teach for America and Mississippi Teacher Corps.

### **For additional information contact:**

Mark V. Smith, Ed.D.

Distinguished Service Professor of Education

& Program Director

Halliburton Tower, Room 408

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**or access** [www.rhodes.edu/academics/education](http://www.rhodes.edu/academics/education)