
MAJOR CHOSEN: MASTER OF EDUCATION IN MATHEMATICS

I. A BRIEF DESCRIPTION OF THE MAJOR

The Master of Education degree in Mathematics is designed to prepare teachers, department chairmen, and supervisors for a dynamic ministry in the Christian school. Certification or public school preparation is not a goal for this program. With this degree we are trying to produce **thinking** teachers knowledgeable in their subject matter area. We want teachers to be able to prepare fresh, original lessons and not be bound to structured teacher's manuals. Your training in this program will equip you to evaluate academic curricula as well as to formulate a strong Christian philosophy of education.

II. COURSE HIGHLIGHTS

Here are some of the courses you will especially enjoy:

History of Mathematics A study of the development of mathematics and the influence of these developments on the history of our western civilization.

Set Theory and Logic This course deals with set theory and logic as they apply to mathematical reasoning. Problem-solving will be dealt with at great length.

Advanced Linear Algebra A study of linear transformations, vector spaces, and matrix theory with an emphasis on canonical forms.

Introduction to Stochastic Processes Topics include Markov Chains, martingales, random walks, and Brownian motion, among others.

Non-Euclidean Geometry A presentation of alternatives to Euclid's Parallel Postulate and the resulting geometries.

Projective Geometry A study of projective space, the principle of duality, Desargues' Theorem, harmonic sets, and other topics.

Research in Education This course introduces you to in-depth educational research, statistics, and testing. The course content is designed to familiarize you with terminology, basic concepts, and tools necessary to develop a research study. Prospective doctoral candidates will especially benefit from this course with its emphasis on structured research.

III. AN OUTLINE OF COURSE REQUIREMENTS

<i>The following core courses are required:</i>		<i>Nine hours must be selected from the following:</i>	
Philosophy of Education	3	Elementary Number Theory	3
Instructional Strategies	3	Abstract Algebra	3
Research in Education	3	Intermediate Analysis	3
History of Mathematics	3	Probability & Statistics I	3
Tests & Measurements	3	Probability & Statistics II	3
Classroom Management	3	Differential Equations	3
		Modern Geometry	3
		Introduction to Topology	3
<i>Three hours must be selected from the following:</i>		Computational Mathematics	3
Foundations of Education	3	Independent Study (500-level)	3
Psychology of Education	3	History of Mathematics	3
		Set Theory & Logic	3
		Complex Variables	3
		Advanced Linear Algebra	3
		Combinatorial Mathematics	3
		Ring Theory	3
		Introduction to Stochastic Processes	3
		Non-Euclidean Geometry	3
		Projective Geometry	3
		Independent Study (600-level)	3
		Readings in Secondary Education	3
		Total	30

IV. ABOUT THE FACULTY

Dr. Gary Guthrie is the chairman of the Division of Mathematical Science at Bob Jones University. He has over 30 years service on the mathematics faculty. Dr. Guthrie has written articles which have been published in the *Journal of Applied Probability*.

Mr. Larry Lemon makes use of his over 30 years of teaching experience in many ways. In addition to his teaching in the mathematics department, Mr. Lemon has served as a consulting engineer for a local construction company. He has also served as a consultant to the public utility companies. Mr. Lemon has also written several manuals for these companies. He also serves as a contributing author to the Bob Jones University Press textbook division.

Dr. Kathy Pilger is the head of the mathematics education department at BJU. She has taught both secondary and university level mathematics classes in both public and private education. Dr. Pilger is a primary author of four high school level textbooks including: Algebra 1, Algebra 2, Geometry, and PreCalculus for BJUP. Dr. Pilger frequently speaks at Christian school conferences on the topic of teaching mathematics.

Dr. David Brown is the chairman of the mathematics department at BJU. He has over 15 years teaching experience. Dr. Brown has co-authored numerous articles in mathematics.

All together, these and the other faculty teaching in the Division of Graduate Studies in the School of Education have over 300 combined years of experience teaching. You will not find a better, more experienced faculty in the country.

You will be studying under many of the authors who researched and wrote the Textbooks for Christian Schools published by Bob Jones University Press. It may be their textbooks you will teach from when you graduate from Bob Jones University. You will be getting your training straight from the experts.

V. FACILITIES, EQUIPMENT, AND OPPORTUNITIES

The Media Center contains all the audiovisual equipment you are likely to use in teaching, including equipment for preparing transparencies, videotapes, laminated bulletin board figures, slide presentations, signs, and duplicating equipment. You will learn how to use these various machines under the guidance of our trained and dedicated staff. The Media Center is also equipped with various curriculum materials, textbooks, and teaching materials for all grade levels and subjects.

Completely equipped computer laboratories are available for your use. There are seven academic computer labs on campus. They consist of Pentium PCs, Apple PowerMacs, and laser printers and are all interconnected via a Novell computer network. Four of these labs are conveniently located in the Alumni Building and are equipped with state-of-the-art equipment. The library and the Science Building contain the other three well-equipped computer labs.

You will have the opportunity to observe experienced Christian teachers right on our campus in the beautiful, air-conditioned buildings of Bob Jones Beginnings Center (kindergarten and first grade), Elementary School, Junior High, and Academy.

The School of Education maintains a Reading Laboratory which provides you with training in diagnostic and remedial reading procedures. You can also learn how to improve your own reading skills and become acquainted with the latest and the best reading equipment.

Because of our care and concern for the spiritual as well as the physical needs of the people in our part of the country, students are encouraged to be involved in outreach ministries in our area. While you are here you will have the opportunity to participate in as many of these ministries as you can fit into your schedule. These opportunities vary from work in nursing homes, jails, detention centers, and churches, to visitation, Bible clubs, providing special music, and martial arts teams.

Davis Field House, with over 87,000 square feet and seating for 3,000 people, contains 4 full-sized courts; auxiliary courts; indoor and outdoor tracks; swimming pool; café; and a fitness center with fully-equipped exercise room, aerobic room, sauna, and whirlpool.

The Mack Library, with 90,000 square feet of floor space and seating for over 1,300 students, gives you access to 294,000 volumes, 1,100 current periodical subscriptions, and more than 17,000 music, speech, and language recordings. Mack Library offers access to over 65 electronic databases on the library web site. An interlibrary loan program is available through OCLC, a national database, for books not held in our library. Other prominent features include the Jerusalem Chamber, a replica of the room in Westminster Abbey in London in which work was done on the 1611 King James Bible, and the University Archives Room which displays materials about the Founder and history of the University.

If you are planning to live on campus, you will be glad to know that all of our residence halls are air-conditioned, have wall-to-wall carpeting, and have a phone in each room. You will be able to make long-distance calls directly from your room and have them automatically placed on your school bill. Computer network connectivity is available in all residence halls, as well.

All of our classrooms are air-conditioned, and there are awnings over the sidewalks to keep you dry when it is raining. The Dining Common serves 8,500 delicious meals a day, and the Snack Shop and Bookstore in the Student Center carry just about anything you'll need.

If you are planning to live off campus, our **Office of Student Services** would be glad to assist you in finding employment and housing. This office also has a Notary Public, driver's license information, car registration information, and tax forms for most states. You may request information by writing them or by calling (864) 242-5100.

You will find your fellow graduate students equally as serious about their studies, and many of them will become your good friends. Also you will have many opportunities to make valuable professional contacts during your time at Bob Jones University.

VI. CAREER OPPORTUNITIES AND PLACEMENT

You could have as many as three good teaching opportunities to choose from as you look for a place to teach. We receive over three times as many requests for teachers as we have teachers to fill those requests. And, in the future, the number of teaching opportunities will increase as we, as a nation, face a national teacher shortage. You will be qualified to help meet this need and train young people both in the states and abroad.

The Career Development and Placement Office sponsors a Principals' Recruitment Conference each February. Approximately 140 administrators and principals from many states and some foreign countries gather to interview and hire new teachers for their schools. This Conference will give you many opportunities to find a place of service after you graduate. In addition, the Career Office maintains a file of miscellaneous information about various Christian schools across the country. This file, too, may provide you with a contact that could lead to many years of active service for the Lord.

VII. BJU: AN AFFORDABLE EDUCATION

Enclosed is an expense sheet detailing the cost of attending Bob Jones University. When you compare our charges to those of other private colleges, we think you will be pleasantly surprised. We believe we offer a student more value for his dollar than anyone else in America.