

second grade less than C, the student will be terminated immediately. Should the student received an Unsatisfactory (U) grade on research credit hours attempted, he/she will be placed on probation.

The probationary period is defined to be one term (summer counts as one term if the student is enrolled). If at the end of the probationary period the student has not remedied his/her deficiency (i.e., has not achieved a 3.00 GPA, has not scheduled research credit hours and received a satisfactory grade), then his/her program of study will be terminated.

A student may appeal termination of his/her program of study to the Aerospace Engineering graduate coordinator.

Further Information—For information about the program or financial support, contact the Aerospace Engineering Graduate Coordinator, Box A, Mississippi State, MS 39762, or send electronic mail to: grad-coord@ae.msstate.edu. Information regarding the Aerospace Engineering graduate programs can be found at the department's website: <http://www.ae.msstate.edu/>.

Graduate Courses—Course prerequisites are noted in parentheses.

ASE 6013	Engineering Design Optimization (Consent of Instructor). 3 hours
ASE 6133	Automatic Control of Aerospace Vehicles (ASE 4123). 3 hours
ASE 6153	Advanced Performance (ASE 2013). 3 hours
ASE 6163	Introduction to Flight Test Engineering (ASE 3313, ASE 4123). 3 hours
ASE 6243	Astrodynamics II (ASE 4143). 3 hours
ASE 6333	Helicopter Aerodynamics and Performance (consent of instructor). 3 hours
ASE 6423	Introduction to Computational Fluid Dynamics (consent of instructor). 3 hours
ASE 6433	Fundamentals of Numerical Grid Generation (consent of instructor). 3 hours
ASE 6990	Special Topics in Aerospace Engineering. 1-9 hours

ASE 7000	Directed Individual Study. 1-6 hours
ASE 8000	Research/Thesis. 1-6 hours
ASE 8313	Advanced Compressible Aerodynamics I (ASE 4343 or equivalent). 3 hours
ASE 8323	Advanced Compressible Aerodynamics II (ASE 8313). 3 hours
ASE 8343	Incompressible Viscous Laminar Flow (consent of instructor). 3 hours
ASE 8353	Turbulent Flow (ASE 8343). 3 hours
ASE 8363	Computational Heat Transfer (consent of instructor). 3 hours
ASE 8413	Computational Fluid Dynamics I (consent of instructor). 3 hours
ASE 8423	Computational Fluid Dynamics II (ASE 8413 or equivalent). 3 hours
ASE 8533	Advanced Numerical Grid Generation (ASE 4433/6433 or consent of instructor). 3 hours
ASE 8990	Special Topics in Aerospace Engineering. 1-9 hours
ASE 9000	Research/Dissertation. 1-20 hours

Agribusiness Management

An Interdisciplinary Program
College of Agriculture and Life Sciences

Dr. Vance Watson, Dean
Dr. Steven C. Turner, Department Head
Dr. Darren Hudson, Graduate Coordinator
300 Lloyd Ricks Building
662-325-2750
<http://agecon.msstate.edu/M.A.B.M.>

The Master of Agribusiness Management (M.A.B.M.) program is an interdisciplinary degree between the College of Agriculture and Life Sciences and the College of Business and Industry. It is administered by the Agribusiness Institute. The program is designed to prepare

students for employment in the management of agribusiness.

Admission Criteria—An applicant for admission to graduate study must hold a bachelor's degree from a fully recognized four-year educational institution that has unconditional accreditation with appropriate regional accrediting agencies. He/she must meet the admission requirements of Graduate Studies and the Master of Agribusiness Management Program. Admission is based primarily on past performance, letters of recommendation, and the Graduate Management Admission Test (GMAT) scores. Regular admission to graduate study in the M.A.B.M. program requires a minimum grade point average (last four semesters of undergraduate work) of 3.00/4.00. When a student is deficient in one of the criteria cited, the student's application, nevertheless, may be considered for admission based on the strength of other materials contained in the student's application. However, reasonable minimum levels of performance must be achieved in both the applicant's GPA and GMAT scores. International applicants not holding degrees from U.S. institutions must submit a TOEFL (Test of English as a Foreign Language) report of 575 or higher to be considered for admission.

Program of Study/Completion

Requirements—The Master of Agribusiness Management degree program requires a minimum of 34 hours of course work and a comprehensive academic examination.

M.A.B.M. Core—The M.A.B.M. program requires 34 hours with a core of 25 hours and nine hours of electives:

Graduate Courses:

- ACC 8112 Financial Accounting and Report Analysis. 2 hours
- AEC 6530 Agribusiness Internship. 3 hours
- AEC 8312 Economic and Social Environment of Agribusiness Firms. 2 hours
- AEC 8522 Decision Modeling for Agribusiness Management. 2 hours
- AEC 8532 International Agricultural Trade and Policy. 2 hours
- AEC 8542 Agribusiness Risk Management. 2 hours
- BIS 8122 Multimedia Communication and Presentation. 2 hours

- BQA 8112 Case Analysis Using Statistics. 2 hours
- EC 8103 Economics for Managers. 3 hours
- FIN 8112 Capital Acquisition and Allocation. 2 hours
- MGT 8121 Strategic Management. 1 hour
- MKT 8112 Marketing Management. 2 hours

Approved Electives. 9 hours

M.A.B.M. Foundation—The foundation portion of the program consists of 18 graduate hours that may be satisfied in part or total by prior undergraduate or graduate preparation.

Graduate Courses:

- ACC 8303 Survey of Accounting (or Principles of Financial and Managerial Accounting). 3 hours
- BIS 8122 Multimedia Communication and Presentation. 2 hours
- BQA 8443 Statistical Analysis for Business Decision Making. 3 hours
- EC 8043 Survey of Economics (or two undergraduate economics courses). 3 hours
- FIN 8052 Survey of Finance (or Financial Management or Farm Financial Management). 2 hours
- MGT 8063 Survey of Management (or Principles of Management or Agribusiness Firm Management and Production Management). 3 hours
- MKT 8072 Survey of Marketing (or Principles of Marketing). 2 hours

Provisional Admission—A student who has not fully met the requirements stipulated by the University and the appropriate department for admission to graduate study may be granted admission as a degree-seeking graduate student with provisional status. Such student must have as his/her initial objective advancement to regular status. A provisional student must receive a 3.00 GPA on the first nine hours of graduate level courses on their programs of study taken at Mississippi State University in order to achieve regular status. Neither transfer hours nor unclassified graduate hours can be used to fulfill this requirement. If a 3.00 is not attained, the provisional student may be dismissed from

graduate study. A student in provisional status is not eligible to hold a graduate assistantship.

Academic Performance—Unsatisfactory performance may be defined as the failure to maintain a B average in graduate courses attempted after admission to the program, a grade of U, D, or F in any course, more than two grades below a B, failure of the comprehensive/preliminary examination, an unsatisfactory evaluation of a thesis or dissertation, failure of the research defense, or any other failure of a required component of one's program of study. Any one of these, or any combination of these, may constitute the basis for the termination of a student's graduate study in a degree program; individual programs have the right to establish their own criteria.

For More Information—For more information regarding the M.A.B.M., please write to the Coordinator, Agribusiness Institute, P.O. Box 9755, Mississippi State University, Mississippi State, MS 39762, or call 662-325-2750.

Agricultural and Biological Engineering

James Worth Bagley College of Engineering

Dr. Kirk Schulz, Dean

Dr. Roger L. King, Associate Dean for
Research and Graduate Studies

Dr. William Batchelor, Department Head and
Graduate Coordinator

100 Agricultural Engineering Building
662-325-3280

[contact: abe_head@abe.msstate.edu](mailto:abe_head@abe.msstate.edu)

Graduate study is offered in the Department of Agricultural and Biological Engineering leading to the degree of Master of Science in Biological Engineering or a Doctor of Philosophy in Engineering. Major areas of study are: agricultural machinery systems, precision agriculture, animal waste management, sustainable design, pesticide applications and protection, bioenvironmental systems, seed processing and storage, aquacultural systems, and agricultural modeling. The department has several major research laboratories including: remote sensing (the Kimbrough Precision Agriculture and Remote Sensing Engineering Laboratory), water quality and environmental

engineering, and cotton ginning (the MAFES/ABE Mini-Gin, a fully operational cotton gin). A limited number of graduate research and teaching assistantships are available.

Admission Criteria—Prerequisites for admission into the graduate program include all the general requirements of the Office of Graduate Studies, an undergraduate engineering degree (or remedial engineering course work), completion of the GRE general test and the submission of scores, and identification of a departmental professor who is willing to serve as research director for the master's or Ph.D. project. International students must obtain a TOEFL score of 550 or higher.

Program of Study and Completion

Requirements—The Master of Science in Biological Engineering requires 24 credit hours of course work beyond the baccalaureate degree, at least one-half of which must be from 8000 level courses or above, and six or more credit hours of research/thesis. Required courses are ST 8114, one credit hour of ABE 8921, or ABE 8931, and at least one other graduate course from the Agricultural and Biological Engineering course listing. A thesis and an oral comprehensive examination in defense of the thesis are required. Doctoral students are required to take or have credit in a graduate level math course, complete a minimum of 60 credit hours of course work beyond the baccalaureate degree, **at least one-half of which must be from 8000 level courses or above**, including at least two credit hours of ABE 8911, ABE 8921, or ABE 8931. Twenty hours of research, a preliminary examination, a dissertation, and an oral examination in defense of the dissertation are required.

Provisional Admission—If a student does not fully meet the admission requirements of the program, it may be possible for that student to be provisionally admitted. If provisionally admitted, the student must attain a 3.00 GPA on the first nine hours of graduate courses at Mississippi State University. If a 3.00 GPA is not attained, the student may be dismissed from the graduate program.

If a student applying to the M.S. program does not have an undergraduate degree in engineering, the student will be required to complete or have previous credit in 51 hours of engineering, mathematics, and physical science courses. The student will be granted contingent admission until the course requirement has been satisfied. Similarly, a student applying to the Ph.D. program must have a B.S. or M.S. degree in engineering. The same set of courses will be required before the student is fully admitted into the Ph.D. program.