

## Bachelor of Applied Science Degree at Mississippi State University- Emphasis Areas and Curricula and Associate of Applied Science Degree Alignment

The Bachelor of Applied Science degree is specifically intended to serve the needs of adults who have completed a technical associate degree program, such as an Associate of Applied Science (AAS) from a SACSCOC accredited community college in the state of Mississippi or comparable region



## Breakdown of Degree Requirements as outlined by Institutions of Higher Learning

Breakdown of Degree Requirements	Credit Hours
Technical Courses (industry-recognized credentials)	45
General Education Core (meets SACCCOC standards)	15
Applied Associates Degree	60 hours total
General Education Core (MSU)	15
University-specified courses	15
Upper Division Courses	30
Applied Baccalaureate Degree	120 hours total*

\*30 hours must be taken at the institution awarding the degree

## Program of Study at Mississippi State University

	Credit Hours
English Composition (I and II)	6
Math (Algebra, Trigonometry, Statistics)	3 to 9
Humanities	6
Social /Behavioral Sciences	6
Sciences with Laboratory Exercises	6
Fine Art	3
<b>Total General Core</b>	<b>30 to 36</b>
<b>University Requirements</b>	
Emphasis (one, two or three areas)**	30 to 36 (two emphases 15-18 h; three emphasis 10h-12)
Speech	3
University Degree Competency (Computer Literacy, Junior/Senior Writing)	6 (requirement may be met in upper level emphasis courses)
University Core Electives***	12-30
General Electives (may include technical and experiential learning credits)****	24-45

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Proposed Emphasis Areas for the BAS Degree by College



Cybersecurity

IE 4333 PC  
IE 4653 Quality  
IE 4753 Systems Engineering

Requirements for 30 hours emphasis area only  
(All of the Engineering courses available online)

Pre-requisites required:

MA 1713 Calculus I  
CSE 1284 Intro to Programming (ISE 1724/IST  
1714/IST 2374/CSC 1613/CSC 2134)  
CSE 1384 Intermediate programming (IST  
1764/IST 2724/CSC 2623/CSC 2144)

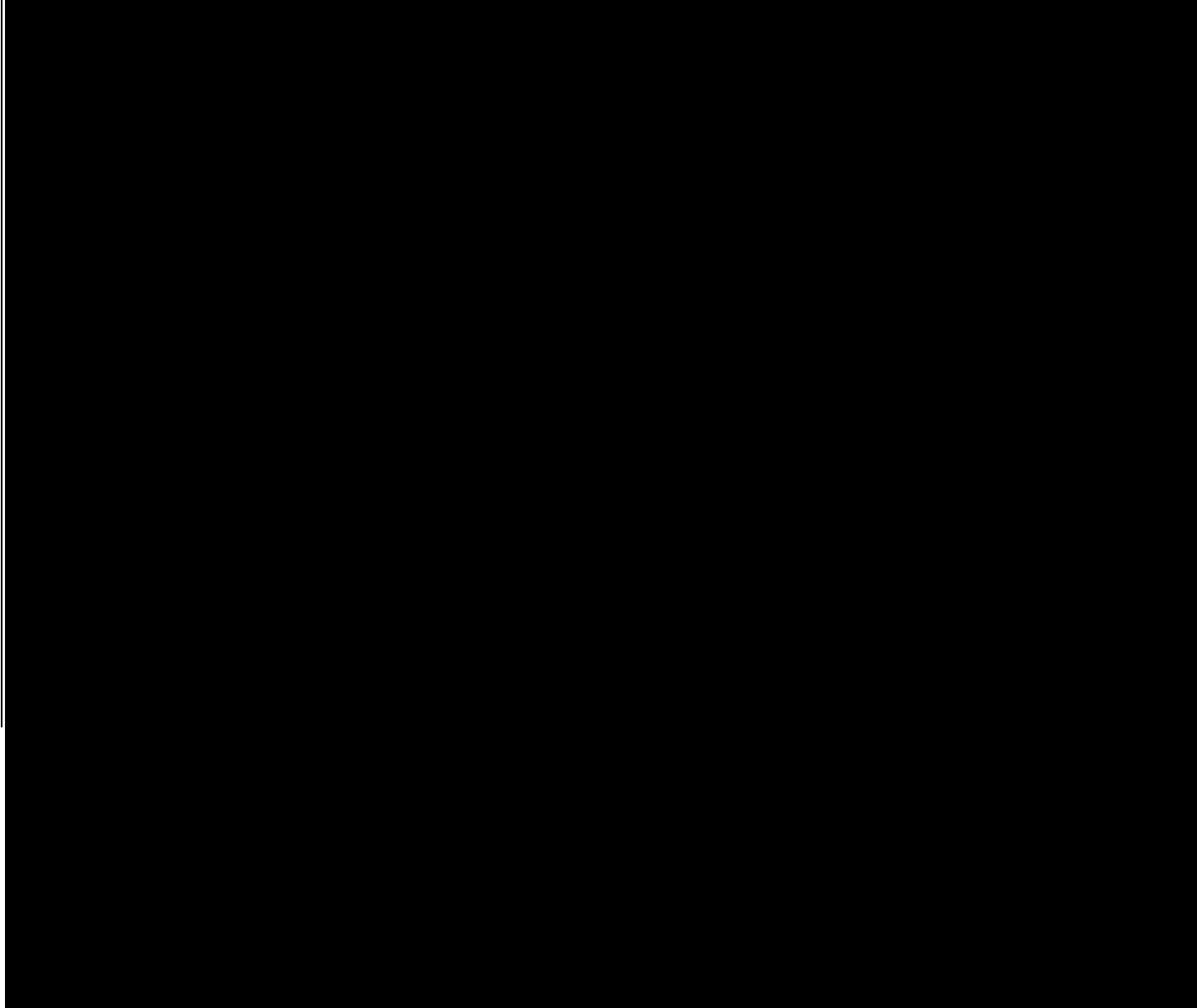
	<p>Required upper division level courses 12 hours  FDM 3553 Merchandise Retail Pricing and Inventory Management  FDM 4693 Digital Merchandising  FDM 4513 Consumer Behavior in Merchandising  FDM 4583 Entrepreneurship in Merchandising</p> <p>The Fashion Design and Merchandising (FDM) program in the School of Human Sciences (SHS), College of Agriculture and Life Sciences (CALS) will offer the Retail Certificate as an emphasis area for the Bachelor of Applied Science (BAS).</p> <p><b>Requirements:</b> Students will need to complete six undergraduate courses -18 credit hours (Required Electives: FDM 2333, FDM 2553, and Required Upper Division Level Courses FDM 3553, FDM 4693, FDM 4513 and FDM 4583). The courses will be offered online (Online/Distance) and face-to-face (Starkville throughout the academic year.</p> <p>Student will need to pick up a second emphasis area (10-15 upper level credit hours) General Business is a recommended emphasis area.</p> <p><b>Total credit hours 120 including electives.</b></p>	
<p><b>Biochemistry</b></p>	<p>If students complete <b>ONE</b> Emphasis Area (30 hours):  BCH 4603 General Biochemistry I (pre-req: CH 4523 Organic Chemistry II)  BCH 4613 General Biochemistry II (pre-req: CH 4523 Organic Chemistry II)  BCH 4713 Molecular Biology  BCH 4503 Scientific Communication Skills  BCH 4623 Biochemistry of Specialized Tissues  BCH 4414 Protein Methods  BCH 4804 Molecular Methods  BCH 3901 Senior Seminar  6 hours of BCH electives.</p> <p>If students pursue <b>TWO</b> Emphasis Areas (15 hours):  BCH 4603 General Biochemistry I (pre-req: CH 4523 Organic Chemistry II)  BCH 4613 General Biochemistry II (pre-req: CH 4523 Organic Chemistry II)  BCH 4713 Molecular Biology</p>	<p>Open to any student with AAS degree</p>

BCH 4503 Scientific Communication Skills  
BCH 4623 Biochemistry of Specialized Tissues



BCH 2013 Introduction to Forensic Science  
(pre-req: BIO 1134 & 1144 Biology I & II)

	<p>ABE 1863 Intro to Engr Tech. ABE 2173 Agri Off-Road Machines ABE 2873 Land Surveying (Pre-req: MA 1323) ABE 3513 GPS/GIS - Ag Eng. ABE 4163 Agri Off-Road Machine Mgt (Pre-req: ABE 2173) ABE 4263 Soil &amp; Water Mgt. (Pre-req: ABE 2873) ABE 4383 Building Construction (Pre-req: EG 1143; junior standing)</p>	
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2. EPY 3503 Principles of Educational\*  
Psychology\* (required course for the BAS  
emphasis area)
3. EPY 3513 Writing in the Behavioral Sciences
4. EPY 3543 Psychology of Adolescents
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30/31 hour concentration:

CO 1403 Intro to Mass Media

CO 2333 TV Production

\*CO 3313 News Writing for Electronic Media

CO 3333 Advanced TV Production

Plus ~~six~~ courses from Broadcast Electives list (18 hours); see below

CO 1223 Intro to Communication Theory

CO 2413 Intro to News Writing  
CO 3313 News Writing for Electronic Media

CO 2544 Makeup and Costuming

Plus



GR 4422 Weather Forecasting 1,  
GR 4432 Weather Forecasting 2,  
GR 4843 Field Methods of Severe Local  
Storms,  
GR 4963 Mesoscale Meteorology

#### Professional Geology Focus

GG 1113 Survey Earth Science 1 and GG 1111  
Survey Earth Science 1 Lab

Six hours of any upper division geology courses,  
such as:

GG 3603 Intro to Oceanography,  
GG 3613 Water Resources,  
GG 4133 Principles of Paleocology,  
GG 4414 Minerology,  
GG 4123 Petrology,  
GG 4153 Engineering Geology,  
GG 4304 Principles of Sedimentary Deposits 1

#### Geospatial Focus

GR 4303 Principles of GIS  
GR 4333 Remote Sensing

Six hours of any geospatial courses, such as:

GR 4323 Cartographic Sciences,  
GR 4353 Geodatabase Design,  
GR 4363 GIS Programming,  
GR 4343 Advanced Remote Sensing

#### Geography Focus

GR 1123 World Regional Geography  
GR 4203 Geography of North America

Four to six hours of any regional geography  
course, such as:

GR 4123 Urban Geography, GR 4223  
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20+ hour Emphasis Courses  
Campus 1(Starkville Campus)

Meteorology/Climate Focus

GR 1604 Weather and Climate  
GR 4643 Physical Climatology  
GR 4733 Synoptic Meteorology  
GR 4813 Natural Hazards

Seven to nine hours from any upper level  
meteorology or climate course, such as:

GR 4613 Applied Climatology,  
GR 4623 Physical Meteorology,  
GR 4783 Satellite Meteorology,  
GR 4883 Radar Meteorology,  
GR 4422 Weather Forecasting 1,  
GR 4432 Weather Forecasting 2,  
GR 4843 Field Methods of Severe Local  
Storms,  
GR 4553 Computer Methods in Meteorology,  
GR 4963 Mesoscale Meteorology

Professional Geology Focus

GG 1113 Survey Earth Science 1 and GG 1111  
Survey Earth Science 1 Lab  
GG 3603 Introduction to Oceanography  
GG 3613 Water Resources  
GG 4114 Mineralogy

Seven to nine hours from any upper level geology  
course, such as:

4133 Principles of Paleoecology,  
GG 4123 Petrology,  
GG 4153 Engineering Geology,  
GG 4304 Principles of Sedimentary Deposits 1,  
GG 4153 Engineering Geology,  
GG 4203 Principles of Paleobiology,  
GG 4201 Practicum on Paleontology,  
GG 4233 Applied Geophysics, or  
GG 4413 Structural Geology

Geospatial Focus

GR 4303 Principles of GIS  
GR 4333 Remote Sensing of the Physical  
Environment  
GR 4313 Advanced GIS  
GR 4353 Geodatabase De-3(St.49 1 3 /P A/CID



GR 4422 Weather Forecasting 1  
GR 4432 Weather Forecasting 2  
GR 4923 Mesoscale Meteorology or GR 4843  
Field Methods of Severe Local Storms

**Broadcast Meteorology Focus**

GR 1604 Weather and Climate  
GR 4643 Physical Climatology  
GR 4613 Applied Climatology or GR 4813  
Natural Hazards  
GR 4733 Synoptic Meteorology  
GR 4623 Physical Meteorology  
GR 4783 Satellite Meteorology or GR 4883  
Radar Meteorology  
GR 4923 Mesoscale Meteorology  
GR 4502 Practicum in Broadcast Meteorology  
1  
GR 4512 Practicum in Broadcast Meteorology  
2  
GR 4522 Practicum in Broadcast Meteorology  
3  
GR 4532 Practicum in Broadcast Meteorology  
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**Geology Focus**

GG 1113 Survey Earth Science 1 and GG 1111  
Earth Science 1 Lab  
GG 1123 Survey Earth Science 2 and GG 1121  
Earth Science 2 Lab  
GG 3603 Intro to Oceanography  
GG 3613 Water Resources  
GG 4114 Mineralogy  
GG 4123 Petrology  
GG 4133 Principles of Paleoecology or GG  
4203 Principles of Paleontology or GG 4203  
Principles of Paleobiology  
GG 4304 Principles of Sed. Deposits 1  
GG 4413 Structural Geology

**Geospatial Focus**

GR 2313 Maps and Remote Sensing  
GR 4303 Principles of GIS  
GR 4313 Advanced GIS  
GR 4323 Cartographic Sciences  
GR 4333 Remote Sensing of the Physical  
Environment  
GR 4343 Advanced Remote Sensing  
GR 4353 Geodatabase Design  
GR 4363 GIS Programming

Six hours of upper level geography or geology courses

**Geography Focus**

GR 1123 World Regional Geography  
GR 2303 Cultural Geography  
GR 4303 Principles of GIS  
GR 4203 Geography of North America  
GR 4213 Urban Geography

**Regional Geography Courses** such as:

GR 4223 Geography of Europe,  
GR 4233 Geography of Asia,  
GR 4243 Geography of Russia,  
GR 4253 Geography of Africa,  
GR 4263 Geography of the South,  
GR 4283 Geography of the Islamic Realm

Six hours of upper level geography or geology courses

**Campus 5(Online/Distance)**

Meteorology/Climatology Focus

GR 1604 Weather and Climate  
GR 4713 Synoptic Meteorology

Psychology

Either or both HI 4363 American Culture and History and HI 4273 Women in American History

Any other 3000 or 4000 level history course (two 3000 and/or 4000 level courses if only one from the group above).

**30+ hour concentration**

Either HI 1063-1073 OR HI 1213-1223

HI 4193, US Environmental History

HI 4653 Hist of Science and Tech

Either or both HI 4363 American Culture and History and HI 4273 Women In American History

Any other three 3000-4000 level history courses (four 3000-4000 level courses if only one group above).

**10/11 hour-concentration:**

PSY 1013 General Psychology and,  
Any upper division courses with advisor approval

**18/19 hour-concentration:**

PSY 1013 General Psychology and,  
Any upper division courses with advisor approval

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	<p style="text-align: center;">GR 2313 Maps and Remote Sensing</p> <ul style="list-style-type: none"> <li>b. FO 2113 Dendrology</li> <li>c. FO 3103 Computer Applications for Forest Resources</li> <li>d. NREC 3213 Environmental Measurements</li> <li>e. NREC 4313 Spatial Technologies for Natural Resource Management</li> <li>f. NREC 4353 Natural Resource Law</li> <li>g. NREC 4413 Natural Resource Policy</li> <li>h. NREC 4463 Forest Hydrology and Natural Resource Management</li> </ul> <p>Plus three of any FO or NREC course 3000 or higher</p>	
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Forestry



WFA 3133 Applied Ecology  
WFA 4243 Wildlife Techniques  
WFA 4153 Principles of Wildlife  
Conservation/Management

Plus one of the following to sum to 12 hours:

WFA 4183 Principles and Practices of  
Aquaculture  
WFA 4253 Application of GIS in WF  
WFA 4273 Ecology and Mgmt. of Human  
Wildlife Conflicts  
WFA 4283 Human Wildlife Conflict  
Techniques  
WFA 4313 Fisheries Management  
WFA 4353 Fish and Wildlife Policy and Law  
Enforcement  
WFA 4373 Conservation in Ag Landscapes

Two-emphasis area courses (BIO I and II or their  
equivalents would be prerequisites):

WFA 1102 Wildlife Professions  
WFA 3133 Applied Ecology  
WFA 4243 Wildlife Techniques  
WFA 4153 Principles of Wildlife  
Conservation and Mgmt.

Plus three of the following to sum to 20 hours:

WFA 4183 Principles and Practices of  
Aquaculture  
WFA 4253 Application of GIS in WF  
WFA 4273 Ecology and Mgmt. of Human  
Wildlife Conflicts  
WFA 4283 Human Wildlife Conflict  
Techniques  
WFA 4313 Fisheries Management  
WFA 4353 Fish and Wildlife Policy and Law  
Enforcement  
WFA 4373 Conservation in Ag Landscapes  
WFA 4383 Wetlands Ecology

One-emphasis area (BIO I and II or their  
equivalents would be prerequisites)

WFA 1102 Wildlife Professions

	<p>Plus seven or eight of the following to sum to 32-35 hours:</p> <ul style="list-style-type: none"> <li>WFA 4183 Principles and Practices of Aquaculture</li> <li>WFA 4253 Application of GIS in WF</li> <li>WFA 4273 Ecology and Mgmt. of Human Wildlife Conflicts</li> <li>WFA 4283 Human Wildlife Conflict Techniques</li> <li>WFA 4313 Fisheries Management</li> <li>WFA 4353 Fish and Wildlife Policy and Law Enforcement</li> <li>WFA 4363 W&amp;F Administration and Communication</li> <li>WFA 4373 Conservation in Ag Landscapes</li> <li>WFA 4383 Wetlands Ecology</li> <li>WFA 4423 Herpetology</li> <li>WFA 4433 Mammalogy</li> <li>WFA 4443 Ornithology</li> <li>WFA 4453 Ichthyology</li> <li>WFA 4463 Human Dimensions of F&amp;W Management</li> </ul>	
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Sustainable Bioproducts

30 hour option. From the list below, choose 30 hours.

- SBP 3113 Biomaterial Physics and Mechanics
- SBP 3123 Biomass to Bioproducts
- SBP 3143 Biomass Characterization and Production
- SBP 4013 Wood Anatomy
- SBP 4023 Lignocellulosic Biomass Chemistry
- SBP 4113 Adhesives and Bio-composites
- SBP 4123 Lumber Manufacture
- SBP 4133 Biorefinery Processes
- SBP 4153 Biological Conversion of Biomass
- SBP 4213 Deterioration and Preservation of Biomaterials
- SBP 4263 Furniture Design and Fabrication
- SBP 4243 Sustainable Bioproducts

SBP 3123 Biomass to Bioproducts  
SBP 3143 Biomass Characterization and  
Production  
SBP 4013 Wood Anatomy  
SBP 4113 Adhesives and Bio-composites  
SBP 4213 Deterioration and Preservation of  
Biomaterials  
**SBP 4144 Composite Application and  
Manufacturing**  
SBP 4253 Quantitative Methods in SBP  
SBP 4353 Forest Products Marketing  
SBP 4313 Bioproducts and the Environment

10-12 hour option. From the list below, choose 10  
12 hours.

SBP 3113 Biomaterial Physics and Mechanics  
SBP 3123 Biomass to Bioproducts  
SBP 4013 Wood Anatomy  
SBP 4023 Lignocellulosic Biomass Chemistry  
SBP 4113 Adhesives and Bio-composites



	Total 21 hours	
Kinesiology (Meridian Campus)	EP 2013 Introduction to Exercise Science KI 2603 Medical Terminology KI 2023 Foundations of Health Education EP 3183 Exercise Psychology EP 3233 Anatomical Kinesiology EP 3304 Exercise Physiology EP 4113 Fitness Programs and Testing EP 4183 Exercise and Weight Control  Total of 21-24 hours	Open to any student with AAS degree

**Bachelor of Applied Sciences Coordinators:**

**Meridian Campus**

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