



# College of Agricultural *and* Life Sciences

School of Forest Resources and Conservation

School of Natural Resources and Environment

## Transfer Guide

Effective Summer B of 2008

# College of Agricultural and Life Sciences

School of Forest Resources and Conservation

School of Natural Resources and Environment

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## Important Contacts

### College of Agricultural and Life Sciences

P.O. Box 110270 / 2002 McCarty Hall D  
Gainesville, FL 32611-0270  
(352) 392-1963 Fax (352) 392-8988  
[www.cals.ufl.edu](http://www.cals.ufl.edu)  
[info@cals.ufl.edu](mailto:info@cals.ufl.edu)

### UF Admissions Office

P.O. Box 114000 / 201 Criser Hall  
Gainesville, FL 32611-4000  
(352) 392-1365  
[www.admissions.ufl.edu](http://www.admissions.ufl.edu)

### UF Student Financial Affairs

(352) 392-1275  
[www.sfa.ufl.edu](http://www.sfa.ufl.edu)

### UF Housing

(352) 392-2161  
[www.housing.ufl.edu](http://www.housing.ufl.edu)

### UF Dean of Students Office

(352) 392-1261  
[www.dso.ufl.edu](http://www.dso.ufl.edu)

### **The Basics**

The College of Agricultural and Life Sciences (CALs) has a tradition of working closely with community college students to ensure a smooth transfer to the University of Florida. Students can choose from 24 majors, including programs in the School of Forest Resources and Conservation and the School of Natural Resources and Environment.

CALs applicants must meet the following requirements before transferring:

- ... Obtain an Associate of Arts degree (or 60 transferable hours for students transferring from private institutions, four-year institutions or institutions outside of Florida). Vocational coursework is not accepted.
- ... Complete two years of sequential high school foreign language courses or 8-10 hours of sequential college-level foreign language courses (or prove proficiency).
- ... Have at least a 2.0 G.P.A. at each higher education institution attended.
- ... Meet the G.P.A. required for the major (all graded attempts calculated, NO grade forgiveness).
- ... Complete specific prerequisite courses required for the major with the required GPA

This transfer guide includes G.P.A. and course requirements organized by major and specialization.

### **Application Process**

Students may apply to CALs by completing the online application available at:  
[www.admissions.ufl.edu](http://www.admissions.ufl.edu).

Applicants should apply no earlier than one year prior to the intended semester of transfer, and no later than the established deadline published at:

[www.admissions.ufl.edu/ugrad/appdates.html](http://www.admissions.ufl.edu/ugrad/appdates.html).

### **CALs Honors Program**

The CALs Honors Program is the only organized upper-division honors program at the University of Florida. The program is designed for students with 60 or more hours and a G.P.A. of 3.75 or higher. Participation in a community college honors program is not required. For more information on the CALs Honors Program contact:

#### **Dr. Mark Rieger**

CALs Associate Dean

(352) 392-1963

[mrieger@ufl.edu](mailto:mrieger@ufl.edu)

[www.cals.ufl.edu/honors](http://www.cals.ufl.edu/honors)

### **Scholarships**

CALs offers many scholarships and awards. Current or incoming students of the University of Florida, who are enrolled or planning to enroll in an Institute of Food and Agricultural Sciences (IFAS) program of study may submit applications. IFAS includes CALs, School of Forest Resources and Conservation, School of Natural Resources and Environment and the Agricultural and Biological Engineering department. All scholarships awarded through the CALs are contingent upon funding and academic performance. Applications can be accessed at [www.cals.ufl.edu](http://www.cals.ufl.edu) or by contacting CALs. Applications will be available beginning December 1 and must be submitted to CALs by February 15 of each year.

### **Student Organizations**

CALS boasts more than 48 student organizations associated with majors and areas of interest. In addition, CALS sponsors several organizations, including the Agricultural and Life Sciences College Council, CALS Ambassadors, Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) and Alpha Zeta. These organizations offer students opportunities for close interaction with faculty, professionals from various fields, and peers. Additional information can be accessed at: [www.cals.ufl.edu](http://www.cals.ufl.edu)

### **Global Gators – International Travel**

CALS is committed to preparing students for the diversity of international challenges they will face as tomorrow's leaders. To meet this goal, CALS encourages students to participate in international travel experiences offered by the University of Florida, or in college sponsored international programs. Recent trips include Italy, France, Costa Rica, and the Czech Republic. More information about Global Gators can be accessed at: [www.cals.ufl.edu/globalgators](http://www.cals.ufl.edu/globalgators)

### **Health-Related Preprofessional Curricula**

Students may major in any area of study while preparing for professional studies in dentistry, medicine, optometry, pharmacy, and veterinary medicine. The majors listed below include the general preprofessional requirements (math, biology, chemistry, organic chemistry, and physics) as part of the required courses for the bachelor's degree along with other required and recommended courses for the health professions.

### **Animal Sciences**

*Animal Biology Specialization*

### **Biology**

*Preprofessional Specialization*

### **Botany**

*Preprofessional Specialization*

### **Entomology and Nematology**

*Preprofessional Specialization*

### **Food Science and Human Nutrition**

*Nutritional Sciences Specialization*

### **Microbiology and Cell Science**

### **Wildlife Ecology and Conservation**

*Preprofessional Specialization*

### **Statewide Programs**

CALS is committed to bringing quality educational opportunities to students throughout Florida. Through statewide programs students can obtain bachelor of science degrees without traveling to Gainesville. Students wishing to transfer to the University of Florida following the completion of an Associate of Arts degree from a Florida community college may consider pursuing a bachelor's degree at one of five sites strategically located throughout the state.

### **Mid-Florida Research and Education Center**

#### **Apopka, FL**

*Landscape and Nursery Horticulture*

#### **Diane Mealo**

*Student Services Coordinator*

[dwm@ufl.edu](mailto:dwm@ufl.edu)

2725 Binion Road

Apopka, FL 32703

(407) 884-2043 Fax: (407) 814-6186

<http://mrec.ifas.ufl.edu/teaching.htm>

### **Ft. Lauderdale Research and Education Center**

#### **Ft. Lauderdale, FL**

*Entomology and Nematology*

*Geomatics*

*Golf and Sports Turf Management*

*Landscape and Nursery Horticulture*

#### **Janet Miranda**

*Student Services Coordinator*

[jmiranda@ufl.edu](mailto:jmiranda@ufl.edu)

3025 College Avenue

Ft. Lauderdale, FL 33314

(954) 577-6371 Fax: (954) 475-4125

<http://flrec.ifas.ufl.edu/Teaching/>

### **Indian River Research and Education Center**

#### **Ft. Pierce, FL**

*Food and Resource Economics*

*Environmental Management in Ag and*

*Natural Resources*

#### **Jackie White**

*Student Services Coordinator*

2199 South Rock Road

[jkwhite@ufl.edu](mailto:jkwhite@ufl.edu)

Ft. Pierce, FL 34945

(772) 468-3922 Fax: (772) 468-5668

<http://irrec.ifas.ufl.edu/Teaching/teaching.htm>

### **West Florida Research and Education Center**

#### **Milton, FL**

*Golf and Sports Turf Management*

*Landscape and Nursery Horticulture*

*Natural Resource Conservation*

#### **Kat Campbell**

*Student Services Coordinator*

[kcampbell@ufl.edu](mailto:kcampbell@ufl.edu)

5988 HWY 90 Bldg 4900

Milton, FL 32583

(850) 983-2632 Fax: (850) 983-2637

[ufmilton@ufl.edu](mailto:ufmilton@ufl.edu)

<http://wfrec.ifas.ufl.edu/>

### **Gulf Coast Research and Education Center— Plant City Campus of Hillsborough Community College**

#### **Plant City, FL**

*Agricultural Education*

*Geomatics*

*Landscape and Nursery Horticulture*

*Natural Resource Conservation*

#### **Martin Wortman**

*Student Services Coordinator*

[mwortman@ufl.edu](mailto:mwortman@ufl.edu)

1200 North Park Rd

Plant City, FL 33563

(813) 707-7330 Fax: (813) 707-7399

<http://mrec.ifas.ufl.edu/pcc>

# COURSE EQUIVALENCIES

UF COURSE	COMMUNITY COLLEGE EQUIVALENT	COURSE DESCRIPTION
BSC 2007	BSC 2007 BSC 2005 BSC 1005 BSC 2050 BSC 1020	Biological Sciences 1: Cells, Organisms, and Genetics  Human Biology
BSC 2009 Lab	BSC 2005 Lab BSC 1005 Lab BSC 1020 Lab	Laboratory in Biological Sciences  Human Biology Lab
BSC 2008	BSC 2008 BSC 2050 BSC 1008 ZOO 1503	Biological Sciences 2: Evolution, Ecology, and Behavior Animal Behavior
BSC 2010	BSC 2010 BSC 1010 BOT 2010 BOT 1010 ZOO 2010 ZOO 1010	Integrated Principles of Biology 1  Plant Diversity 1  General Zoology 1  *preprofessional students should take BSC 2010 & Lab
BSC 2011	BSC 2011 BSC 1011 BOT 2011 BOT 1011 ZOO 2011 ZOO 1011	Integrated Principles of Biology 2  General Botany 2  General Zoology 2  *preprofessional students should take BSC 2011 & Lab
CHM 1083	CHM 1083 CHM 1030 & Lab CHM 1025 & Lab	Consumer Chemistry Elements of Chemistry Introduction to Chemistry
CHM 2045	CHM 2045 CHM 1045 (CHM 1040 & Lab and CHM 1041 & Lab)	General Chemistry 1
CHM 2046	CHM 2046 CHM 1046	General Chemistry 2
CHM 1030 CHM 1031	CHM 1020 CHM 1021	Basic Chemistry Concepts and Applications 1  Basic Chemistry Concepts and Applications 2
ECO 2013	ECO 2013 ECO 1013	Principles of Macroeconomics
ECO 2023	ECO 2023 ECO 1023	Principles of Microeconomics
ENC 2210	ENC 2210 ENC 1210 ENC 2301 MMC 2100	Technical Writing  Advanced Communication Writing for Mass Communication
SYG 2000	SYG 2000	Principles of Sociology
PSY 2012	PSY 2012	Principles of Psychology

UF COURSE	COMMUNITY COLLEGE EQUIVALENT	COURSE DESCRIPTION
MAC 1147	MAC 1147 MAC 1140 & MAC 1114 MAC 1105 & MAC 1114	Precalculus with Trigonometry Precalculus and Trigonometry College Algebra and Trigonometry
MAC 2233	MAC 2233	Survey of Calculus
MAC 2311	MAC 2311	Analytic Geometry and Calculus 1
MAC 2312	MAC 2312	Analytic Geometry and Calculus 2
MAC 2313	MAC 2313	Analytic Geometry and Calculus 3
PHY 2004	PHY 2004	Applied Physics 1
PHY 2005	PHY 2005	Applied Physics 2
PHY 2020	PHY 1020	Introduction to Principles of Physics
PHY 2048	PHY 2048	Physics with Calculus 1
PHY 2049	PHY 2049	Physics with Calculus 2
PHY 2053	PHY 2053 PHY 1053	Physics 1
PHY 2054	PHY 2054 PHY 1054	Physics 2
SPC 2600*	SPC 2600 SPC 1600	Introduction to Public Speaking
STA 2023	STA 2023 STA 1023	Introduction to Statistics
SYG 2430	SYG 2430 SYG 2410	Marriage and Family Marriage and Family
ACG 2021C	ACG 2011C or ACG 2001 & ACG 2011	Introduction to Financial Accounting  Principles of Accounting I Principles of Accounting II
GLY 2010C	GLY 2010	Physical Geology
GEO 2200	GEO 2200	Physical Geography

\*Note: SPC 1016 Introduction to Personal Communication is **not** the course equivalent of SPC 2600.

## AGRICULTURAL AND BIOLOGICAL ENGINEERING

Agrisystems Engineering  
Biological Engineering  
Land and Water Resources Engineering

Agricultural and Biological Engineers (ABE) help ensure that we have the basic necessities of life...safe and plentiful food supplies, pure water to drink and a safe, healthy environment. This program integrates the sciences and math with expertise in several different areas (land & water resources, biological, agrisystems). Students are trained to solve the specialized engineering problems of a variety of natural resource and agricultural systems and to develop new uses for renewable biological resources.

ABE is offered cooperatively by the Colleges of Engineering and Agricultural and Life Sciences. Students majoring in Agricultural and Biological Engineering are considered students of the College of Engineering and should refer to that college for admission questions and curriculum guidance.

**Community college students must complete an Associate of Arts, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Specializations

**Agrisystems Engineering**

**Biological Engineering**

**Land and Water Resources Engineering**

Required G.P.A. = 2.0 overall and 2.5 in the following courses (does not include labs)

Students MUST complete a minimum of **six** out of the following **eight** courses before transferring:

* CHM 2045 & 2045L	General Chemistry 1 and Lab	4
* CHM 2046 & 2046L	General Chemistry 2 and Lab	4
MAC 2311	Analytic Geometry and Calculus 1	4
MAC 2312	Analytic Geometry and Calculus 2	4
MAC 2313	Analytic Geometry and Calculus 3	4
MAP 2302	Elementary Differential Equations	3
** PHY 2048 & 2048L	Physics with Calculus 1 and Lab	4
PHY 2049 & 2049L	Physics with Calculus 2 and Lab	4

Please note: a grade of "C" or better is required within two attempts in the above listed courses.

\* CHM 2046L is only required for students selecting the Biological Engineering option

\*\* This course must be completed as part of the minimum six courses before transferring.

The following course may be completed at the community college but is not required for admission to the College of Engineering:

ENC 2210	Technical Writing	3
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Undergraduate Coordinator:  
Dr. James Leary  
(352) 392-1864 ext. 115  
drleary@ufl.edu

Student Services Coordinator  
Mary Hall  
(352)-392-1864 ext. 114  
abeinfo@ufl.edu

# AGRICULTURAL EDUCATION AND COMMUNICATION

## Agricultural Education Communication and Leadership Development

Agricultural Education and Communication prepares students for careers in agricultural education, the Cooperative Extension Service, business, industry, and agricultural communication. Two specializations are offered: agricultural education and communication and leadership development. All require a common core that includes technical agriculture courses and professional education.

**Agricultural Education** prepares students for exciting and challenging careers in teaching and other related areas. Specifically, the program prepares students to be certified agriscience instructors and educational specialists. Students who complete the program of study in this specialization are prepared to meet the Florida Department of Education's requirements for agriculture teacher certification or for employment in the agricultural business and industry sector.

**Communication and Leadership Development** prepares students for entry into agribusiness and communication positions related to human resource development, corporate training and development and agricultural literacy. Coursework focuses on a core of leadership and communication courses, including leadership development, digital media, interpersonal skills, working with groups, presentation development, intercultural communication, public relations campaign strategies for agriculture, and technical writing.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Agricultural Education

Required G.P.A. = 2.5 overall and 2.5 in the following courses.

Students **MUST** complete the following courses before transferring:

<b>BSC 2007 &amp; 2009L</b>	<b>Biological Sciences 1 and Lab</b>	<b>4</b>
<b>SPC 2600</b>	<b>Introduction to Public Speaking</b>	<b>3</b>
<b>MAC 1140</b>	<b>Precalculus Algebra</b>	<b>3</b>
or <b>MAC 1105</b>	<b>College Algebra</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

ENC 2210	Technical Writing	3
EDG 2701	Teaching Diverse Populations	3
CHM 1083	Consumer Chemistry	3
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
STA 2023	Introduction to Statistics	3
PSY 2013	General Psychology	3

**Communication and Leadership Development**

Required G.P.A. = 2.5 overall and 2.5 in the following courses.

Students MUST complete the following courses before transferring:

<b>BSC 2007 &amp; 2009L</b>	<b>Biological Sciences 1 and Lab</b>	<b>4</b>
<b>SPC 2600</b>	<b>Introduction to Public Speaking</b>	<b>3</b>
<b>MAC 1140</b>	<b>Precalculus Algebra</b>	<b>3</b>
or <b>MAC 1105</b>	<b>College Algebra</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

CHM 1083	Consumer Chemistry	3
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
STA 2023	Introduction to Statistics	3
ENC 2210	Technical Writing	3
MMC 2100	Writing for Mass Communications	3
American History or Political Science Course		3

Undergraduate Coordinator:  
Dr. Ricky Telg  
(352) 392-0502 ext. 224  
rwtelg@ufl.edu  
<http://aec.ifas.ufl.edu>

Student Services Coordinator:  
Jodi Degraw  
(352) 392-0502 ext.221  
jdegraw@ufl.edu

## AGRICULTURAL OPERATIONS MANAGEMENT

Construction and Process Management

Environmental Systems Management

Production Systems Management

Technical Sales Management

Agricultural Operations Management (AOM) applies technology and business principles to improve the efficiency and operation of a variety of systems including environmental quality, food and worker safety, irrigation, water control, agricultural production and processing, agricultural construction management, machinery, technical sales and food processing. In addition to hands-on technical training, students also take specific business courses preparing them for careers in a wide variety of commercial business operations.

**Construction and Process Management** focuses on improving the efficiency of a variety of buildings and systems while reducing the use of limited natural resources. Courses explore the use of energy, building methods and improved management techniques to improve decision making skills in order to increase efficiency and profits while reducing the environmental impact.

**Environmental Systems Management** prepares students for careers in environmental management in agricultural business, regulatory agencies, or consulting firms. These careers play a dynamic role in conserving the environment, human safety issues, regulations and permitting requirements.

**Production Systems Management** focuses on the management of vegetable, fruit, field crop, citrus, livestock and nursery operations.

**Technical Sales Management** prepares students for careers in sales management, product planning and development, inventory control and agricultural sales.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Construction and Process Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>MAC 2233</b>	<b>Survey of Calculus 1</b>	<b>3</b>
<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

BSC 2007 & 2009L	Biological Sciences 1 and Lab	4
BSC 2008	Biological Sciences 2	3
PHY 2005	Applied Physics 2	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2013	Macroeconomics	3
ECO 2023	Microeconomics	3
ACG 2021C	Introduction to Financial Accounting	4
PSY 2012	General Psychology	3
STA 2023	Introduction to Statistics 1	3

### Environmental Systems Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>MAC 2233</b>	<b>Survey of Calculus 1</b>	<b>3</b>
<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>
<b>PHY 2005 &amp; 2005L</b>	<b>Applied Physics 2 and Lab</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2013	Macroeconomics	3
ECO 2023	Microeconomics	3
PSY 2012	General Psychology	3
STA 2023	Introduction to Statistics 1	3

### Production Systems Management

#### Technical Sales Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>MAC 1147</b>	<b>Precalculus Algebra and Trig</b>	<b>4</b>
<b>or MAC 1140 &amp; MAC 1114</b>	<b>Precalculus Algebra and Trig</b>	<b>6</b>
<b>or MAC 1105 &amp; MAC 1114</b>	<b>College Algebra and Trigonometry</b>	<b>6</b>
<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>PHY 2004</b>	<b>Applied Physics 1</b>	<b>3</b>
<b>or PHY 2020</b>	<b>Introduction to Physics</b>	<b>3</b>
<b>Approved Physical Science Course</b>		<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2013	Macroeconomics	3
ECO 2023	Microeconomics	3
BSC 2007 & 2009L	Biological Sciences 1 and Lab	4
BSC 2008	Biological Sciences 2	3
PSY 2012	General Psychology	3
ACG 2021C	Introduction to Financial Accounting	4
STA 2023	Introduction to Statistics 1	3

Undergraduate Coordinator:

Dr. Wendell Porter  
(352) 392-1864 ext. 105  
waporter@ufl.edu  
www.agen@ufl.edu

Student Services Coordinator:

Mary Hall  
(352) 392-1864 ext. 114  
aebinfo@ufl.edu

## ANIMAL SCIENCES

Animal Biology

Animal Industry

(Beef Cattle, Dairy, Equine, and Safety and Processing of Meat and Poultry)

This major offers two specializations: animal biology and animal industry. Students may select from four options under the animal industry specialization: beef cattle, dairy, equine, and safety and processing of meat and poultry. Students are encouraged to select the appropriate specialization and electives to prepare for specific career objectives. Potential careers for animal sciences majors include various aspects of livestock production, livestock processing and utilization (meat, milk and eggs as well as performance and recreation), allied service industries (feed, health care, genetics, equipment, supplies, marketing, promotion, finance and education) and preparation for graduate school or veterinary medicine school.

**Animal Biology** is designed for students who wish to become veterinarians, dentists, medical doctors, pharmacists or pursue graduate studies and want a strong basic science orientation in their undergraduate program. Students select elective courses in animal sciences, zoology, microbiology, wildlife ecology and veterinary science to strengthen their academic portfolios.

**Animal Industry** includes options for careers in dairy, equine and food animal industries. Career preparation can be strengthened through selection of elective courses.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Animal Biology

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3
MAC 2311	Analytic Geometry and Calculus 1	4

**Animal Industry:**

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 1147</b>	<b>Precalculus Algebra and Trig</b>	<b>4</b>
or <b>MAC 1140 &amp; MAC 1114</b>	<b>Precalculus Algebra and Trig</b>	<b>6</b>
or <b>MAC 1105 &amp; MAC 1114</b>	<b>College Algebra and Trigonometry</b>	<b>6</b>
<b>MCB 2000 &amp; 2000L</b>	<b>Microbiology and Lab</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

Undergraduate Coordinator:  
Dr. Joel Brendemuhl  
(352) 392-2186  
brendemuhl@animal.ufl.edu  
www.animal.ufl.edu

Student Services Coordinator:  
Sylvia Beauchamp  
(352) 392-2186  
sylvia@animal.ufl.edu

## BIOLOGY

Applied Biology  
Biotechnology  
Natural Science  
Preprofessional

The College of Agricultural and Life Sciences offers a biology major that allows students to develop a broad, integrative background in the biological sciences. Each specialization develops fundamental knowledge of animals, plants and microorganisms and allows students to select courses to enhance their knowledge in specific areas.

### Applied Biology

The applied biology specialization is for students interested in learning how fundamental biology is applied to solving problems. This specialization provides exposure to the major issues facing sustainability of human populations and natural resources. This specialization prepares students for graduate study in the biological sciences.

### Biotechnology

The biotechnology specialization prepares students for careers where knowledge of molecular biology and genetic engineering are important. Students will have the opportunity to learn various techniques and scientific procedures in molecular biology, virology, bioengineering, cell and tissue culture, microscopy, and bioinformatics. This specialization prepares students for graduate study in the biological sciences.

### Natural Science

The natural science specialization is for students who are interested in descriptive and interpretive biology. This specialization provides exposure to major forms of flora and fauna, and integrates elements that influence flora and fauna, namely soil/water relations and human activities. This specialization prepares students for graduate study in the biological sciences.

### Preprofessional

The preprofessional specialization includes core prerequisite courses for admission to medical, dental, pharmacy or veterinary medical programs. Electives in the life sciences allow students to explore their particular interests.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Applied Biology

### Biotechnology

### Natural Science

### Preprofessional

Required G.P.A. = 2.0 overall and 2.5 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 2311	Analytic Calculus and Geometry 1	4

:

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
* CHM 2210	Organic Chemistry 1	3
CHM 2211 & 2211L	Organic Chemistry 2 and Lab	5

\*Students planning to take this course at the community college are strongly advised to complete both organic chemistry courses prior to transferring instead of splitting the sequence between institutions.

For more information contact:  
Undergraduate Coordinator  
Dr. R. Elaine Turner  
(352) 392-1963  
returner@ufl.edu

Student Services Coordinator  
Katie Mills  
(352) 392-1906  
kjm@ufl.edu

# BOTANY

## Basic Botany Preprofessional

The Botany program is offered through the Colleges of Agricultural and Life Sciences and Liberal Arts and Sciences. The program provides a broad background in the biology of plants and involves study and research in anatomy, biochemistry, ecology, genetics, morphology, mycology, physiology and taxonomy. Students with a botany degree can pursue careers in other plant sciences, such as horticulture, agronomy, plant pathology and forestry. Botany provides a strong curriculum for students pursuing medical, dental, pharmacy or veterinary school.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Basic Botany

Required G.P.A. = 2.0 overall and 2.5 in the following courses, with a C or better in each. Students MUST complete the following courses before transferring:

	<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
	<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
	<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
or	<b>BOT 2010C</b>	<b>Introductory Botany</b>	<b>4</b>
	<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
or	<b>MCB 2000</b>	<b>Microbiology</b>	<b>3</b>
	<b>MAC 1147</b>	<b>Precalculus Algebra and Trig</b>	<b>4</b>
or	<b>MAC 1140 &amp; MAC 1114</b>	<b>Precalculus Algebra and Trig</b>	<b>6</b>
or	<b>MAC 1105 &amp; MAC 1114</b>	<b>College Algebra and Trigonometry</b>	<b>6</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences; a grade of C or better is required in each.

PHY 2004 & 2004L	Applied Physics 1 and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

### Preprofessional

Required G.P.A. = 2.0 overall and 2.5 in the following courses, with a C or better in each. Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry &amp; Calculus 1</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences; a grade of C or better is required in each.

PHY 2053 & 2053L	Physics 1 and Lab	4
PHY 2054 & 2054L	Physics 2 and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

Undergraduate Coordinator:  
Dr. Bernie Hauser  
(352) 392-0009  
bahauser@botany.ufl.edu  
www.botany.ufl.edu

## ENTOMOLOGY & NEMATOLOGY

Basic Science  
Ecotourism  
Plant Protection  
Preprofessional  
Urban Pest Management

Entomology and nematology are biological sciences associated with the study of two principal groups of invertebrate animals: insects and nematodes. Students majoring in this area follow basic biological science or applied pest management curricula. This major is also available at the Fort Lauderdale Research and Education Center.

**Basic Science** prepares students for entomological careers, research and graduate school.

**Ecotourism** prepares students for careers in the ecotourism industry, including nature-based history education, theme parks, preserves and recreation.

**Plant Protection** offers instruction in entomology, nematology, plant pathology and weed science. Studies emphasize the theory and application of biological, chemical and integrated pest management (IPM) programs that will maintain a quality environment.

**Preprofessional** prepares students for programs in medicine, dentistry, or veterinary medicine.

**Urban Pest Management** is designed for students who want to enter the commercial pest control industry.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Basic Science

Required G.P.A. = 2.0 overall and 2.5 in the following courses.

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
or BOT 2010C	Introductory Botany	3
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 2233	Survey of Calculus 1	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
PHY 2004 & 2004L	Applied Physics 1 and Lab	4
PHY 2005 & 2005L	Applied Physics 2 and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

**Ecotourism**

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045	General Chemistry 1	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
or BOT 2010C	Introductory Botany	3
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
PHY 2004	Applied Physics 1	3
or PHY 2020	Introduction to Principles of Physics	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

**Plant Protection**

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
or BOT 2010C	Introductory Botany	3
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
PHY 2004 & 2004L	Applied Physics 1 and Lab	4
STA 2023	Introduction to Statistics 1	3
ECO 2023	Microeconomics	3

### Preprofessional

Required G.P.A. = 2.0 overall and 2.5 in the following courses.

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
or <b>BOT 2010C</b>	<b>Introductory Botany</b>	<b>3</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry &amp; Calculus 1</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

PHY 2053 & 2053L	Physics 1 and Lab	4
PHY 2054 & 2054L	Physics 2 and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3
STA 2023	Introduction to Statistics 1	3
* CHM 2210	Organic Chemistry	3
CHM 2211 & 2211L	Organic Chemistry 2 & Lab	4

\*Students planning to take this course at the community college are strongly advised to complete both organic chemistry courses prior to transferring instead of splitting the sequence between institutions.

### Urban Pest Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
or <b>BOT 2010C</b>	<b>Introductory Botany</b>	<b>3</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 1147</b>	<b>Precalculus Algebra and Trig</b>	<b>4</b>
or <b>MAC 1140 &amp; MAC 1114</b>	<b>Precalculus Algebra and Trig</b>	<b>6</b>
or <b>MAC 1105 &amp; MAC 1114</b>	<b>College Algebra and Trigonometry</b>	<b>6</b>
<b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>
or <b>PHY 2020</b>	<b>Introduction to Principles of Physics</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

Undergraduate Coordinator: Dr. Carl Barfield  
(352) 392-1901 ext. 131  
barfield@ufl.edu  
<http://entnemdept.ifas.ufl.edu>

## ENVIRONMENTAL MANAGEMENT IN AGRICULTURE AND NATURAL RESOURCES Interdisciplinary Studies

This interdisciplinary studies major emphasizes environmental management as it affects our land and water resources. Graduates will find employment with agricultural producers, consulting companies, and governmental agencies that are involved in maintaining a sustainable environment.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Environmental Management in Agriculture and Natural Resources

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2233</b>	<b>Survey of Calculus 1</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
PHY 2020	Introduction to Principles of Physics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

Undergraduate Coordinator: Susan Curry  
(352) 392-1951 ext. 252  
scurry@ufl.edu  
PO Box 110510  
2176A McCarty Hall  
Gainesville, FL 32611

## ENVIRONMENTAL SCIENCE

Environmental science is the science of people's role in natural systems, the basis of our economy. This program accesses courses university wide and provides numerous opportunities for international study. The environmental science degree approaches complex environmental issues with reliable knowledge and interdisciplinary perspectives. This includes the study of biological and physical sciences, ethics, economics, policy, and law.

The degree prepares graduates for careers with environmental consulting companies, government environmental offices, land and water management agencies, or non-government organizations. Students may seek either a Bachelor of Science or Bachelor of Arts degree.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Bachelor of Science

Required GPA = 2.0 overall and 2.0 in the following courses

Students MUST complete the following preprofessional courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
MAC 2311	Analytic Geometry and Calculus 1	4
or MAC 2233	Survey of Calculus 1	3
MAC 2312	Analytic Geometry and Calculus 2	4
or MAC 2234	Survey of Calculus 2	3
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
PHY 2053 & 2053L	Physics 1 and Lab	5
or PHY 2004 & 2004L	Applied Physics and Lab	4
PHY 2054 & 2054L	Physics 2 and Lab	5
or PHY 2005 & 2005L	Applied Physics 2 and Lab	4
STA 2023	Introduction to Statistics 1	3
ECO 2023	Microeconomics	3
ECO 2013	Macroeconomics	3

### Bachelor of Arts

Required GPA = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2007 & 2009L	Biological Sciences 1 and Lab	4
BSC 2008	Biological Sciences 2	3
PHY 2004	Applied Physics 1	3
or PHY 2020	Introduction to Principles of Physics	3
MAC 1140	Precalculus Algebra	3
or MAC 1147	Precalculus Algebra and Trig	4
POS 2041	American Federal Government	3
STA 2023	Introduction to Statistics 1	3
ECO 2023	Microeconomics	3
ECO 2013	Macroeconomics	3

Student Services Coordinator:

Meisha Wade  
 (352) 392-9230  
 mwade@ufl.edu  
 103 Black Hall  
 Gainesville, FL 32611-6455  
 www.snre.ufl.edu

## FAMILY, YOUTH AND COMMUNITY SCIENCES

The Family, Youth and Community Sciences (FYCS) major is an applied social science program that provides general and technical education for careers in human services, community development, Cooperative Extension and youth professions. Graduates find employment in public, private, nonprofit and for profit organizations. FYCS prepares students to deal with complex problems in human and community services. Students develop in-depth knowledge in individual and family development/functioning in a community and societal context; contemporary problems facing youth, families and communities; and organizational policies and programs designed to alleviate concerns. Students also learn intervention skills such as interpersonal communication; program planning, management and administration; social policy; applied research and evaluation; and community-based education.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Family, Youth and Community Sciences

Required G.P.A. = 2.0 overall and 2.5 in the following courses with a "C" or better in each. Students MUST complete the following courses before transferring:

<b>BSC 2007 &amp; 2009L</b>	<b>Biological Sciences 1 and Lab</b>	<b>4</b>
<b>MAC 1105</b>	<b>College Algebra</b>	<b>3</b>
or <b>MAC 1140</b>	<b>Precalculus Algebra</b>	<b>3</b>
<b>SYG 2000</b>	<b>Principles of Sociology</b>	<b>3</b>
<b>PSY 2012</b>	<b>General Psychology</b>	<b>3</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>
or <b>ECO 2013</b>	<b>Macroeconomics</b>	<b>3</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
SYG 2430	Marriage and Family	3
CHM 1083	Consumer Chemistry	3
or PHY 2020	Introduction to Principles of Physics	3

Undergraduate Coordinator:  
 Dr. Jerry Culen  
 (352) 392-2201 ext. 257  
 grculen@ufl.edu  
<http://fycs-degreeprograms.ifas.ufl.edu>

Student Services Coordinator:  
 Jennifer Gove  
 (352) 392-2201 ext. 251  
 jegove@ufl.edu

## FOOD AND RESOURCE ECONOMICS

Food and Agribusiness Marketing and Management  
International Food and Resource Economics  
Natural Resource, Environmental Economics, and Policy

Food and resource economics is a diverse field. Graduates obtain positions in sales, international business, financial management, extension and government policy. To account for this diversity, the department offers three specializations:

**Food and Agribusiness Marketing and Management** is designed for students interested in food and fiber systems management, marketing, finance, and international business. Employment opportunities include managerial positions with major agribusiness firms, sales positions, commercial banks, Farm Credit Service and insurance and appraisal firms. An off-campus degree program in agribusiness marketing and management is available through the Indian River Research and Education Center in Fort Pierce, FL.

**International Food and Resource Economics** provides a broad background in economic theory and international development and policy. This specialization is particularly appropriate for students preparing for graduate school or for careers working for international organizations and governments.

**Natural Resource, Environmental Economics, and Policy** provides students with a broad background in social sciences, management, and law. This diversity provides the skills for an entry-level position with a government agency, an environmental consulting firm, or law school.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Food and Agribusiness Marketing and Management International Food and Resource Economics Natural Resource, Environmental Economics, and Policy

Required G.P.A. = 2.0 overall and 2.0 in the following courses  
Students MUST complete the following course before transferring:

<b>MAC 2233</b>	<b>Survey of Calculus 1</b>	<b>3</b>
<b>ACG 2021C</b>	<b>Introduction to Financial Accounting</b>	<b>4</b>
<b>ECO 2013</b>	<b>Macroeconomics</b>	<b>3</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

CHM 1083	Consumer Chemistry	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
BSC 2007 & 2009 L	Biological Sciences 1 and Lab	4

Undergraduate Coordinator:  
David Barber  
(352) 392-1826 ext. 214  
dbarber@ufl.edu  
www.fred.ifas.ufl.edu

# FOOD SCIENCE AND HUMAN NUTRITION

Dietetics  
Food Science  
Nutritional Sciences

The Food Science and Human Nutrition Department offers three specializations: dietetics, food science, and nutritional sciences. Students should consult department advisers for guidance and approval of electives.

**Dietetics** is a challenging profession that applies the sciences of food and nutrition to the health and well-being of individuals and groups in a variety of settings. The curriculum includes courses in biological and physical sciences, math, communications, economics, and business combined with in-depth courses in lifecycle nutrition, medical nutrition therapy, metabolism, community nutrition, and counseling. The curriculum is accredited by the Commission on Accreditation for Dietetics Education (CADE). Graduates are eligible to compete for placement in a CADE accredited dietetic internship. Following the completion of an internship, students take a national registration examination to earn the Registered Dietitian (RD) credential.

**Food Science** professionals work in the food industry and government agencies in areas such as product development, quality assurance, sensory evaluation, packaging, regulations, and safety. The curriculum emphasizes a strong technical background in biology, chemistry, microbiology, and engineering and the applications of these sciences to the safety, quality, and nutritional value of food. The curriculum is approved by the Institute of Food Technologists (IFT) and is excellent preparation for graduate study.

**Nutritional Sciences** graduates have entered medical, dental, pharmacy, optometry, veterinary, physician assistant, and other professional programs. The curriculum emphasizes the basic sciences and includes prerequisite courses for most professional schools. Courses in nutritional sciences emphasize the role of nutrition in growth, development, health, disease risk reduction, and disease treatment. The curriculum is excellent preparation for graduate study in nutrition, health, and other science fields.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

## Dietetics

Required G.P.A. = 2.0 overall and 2.5 in the following courses with a "C" or better in each  
Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
PSY 2012	General Psychology	3
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
MCB 2000 & 2000L	Microbiology & Lab	3

### Food Science

Required G.P.A. = 2.0 overall and 2.5 in the following courses, with a "C" or better in each. Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

PHY 2004 & 2004L	Applied Physics 1 and Lab	4
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
STA 2023	Introduction to Statistics 1	3
MCB 2000 & 2000L	Microbiology and Lab	4

### Nutritional Sciences

Required G.P.A. = 2.0 overall and 2.5 in the following courses, with a "C" or better in each. Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

*CHM 2210	Organic Chemistry 1	3
CHM 2211 & 2211L	Organic Chemistry 2 and Lab	5
PHY 2053 & 2053L	Physics 1 and lab	4
or PHY 2048 & 2048L	Physics with Calculus 1 and Lab	4
PHY 2054 & 2054L	Physics 2 and lab	4
or PHY 2049 & 2049L	Physics with Calculus 2 and Lab	4
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
STA 2023	Introduction to Statistics 1	3

\*Students planning to take this course at the community college are strongly advised to complete both organic chemistry courses prior to transferring instead of splitting the sequence between institutions. In addition students interested in professional school may benefit from taking science classes at UF.

Undergraduate Coordinator:  
Dr. Anne Kendall  
(352) 392-1512 ext. 701  
kendall@ufl.edu  
<http://fshn.ifas.ufl.edu/index.html>

Student Services Coordinators:  
Janna Underhill  
(352) 392-1991 ext. 220  
janna@ufl.edu

Nicole Young  
(352) 392-1991 ext. 203  
ntyoung@ufl.edu

## FOREST RESOURCES AND CONSERVATION

Environmental Pre-law  
Forest Business Management  
Forest Resource Management  
Forest Informatics  
Protected Areas Management  
Recreation Resource Management  
Urban Forestry  
Watershed Science and Management

The School of Forest Resources and Conservation offers Florida's only nationally accredited, four-year program of forestry education. The Forest Resources and Conservation major (FRC) provides a thorough understanding of natural and managed forest ecosystems and prepares students to work with natural resources and modern technology to meet the expanding needs and expectations of a nonexpanding forest land base. Graduates are employed by private industry, local, state and federal agencies, nonprofit conservation groups, or are self-employed as consultants. A strong employment market, competitive salaries, and excellent career advancement opportunities abound.

**Forest Business Management** gives students a sound background in natural resource management and a broad introduction to business as appropriate for students interested in consulting, real estate or working for forest industry.

**Environmental Pre-Law** provides a solid undergraduate basis of forest and natural resources science and management building a broad understanding of policies and processes affecting the use of natural resources.

**Forest Resource Management** is for students seeking a comprehensive education in forest resource science and management.

**Forest Informatics** is designed to prepare students for graduate school and for careers in those aspects of natural resources where quantification, modeling, descriptive and predictive analyses of natural resources attributes is needed for sound management.

**Protected Areas Management** is for students interested in managing lands for conservation and restoration purposes, usually on lands owned by the government or by private conservation organizations.

**Recreation Resource Management** focuses on the sustainable management of recreation for our natural resources and understanding human dimensions as related to their use.

**Urban Forestry** is focused on the forest resource and the people in and around the cities and towns where they live and work.

**Watershed Science and Management** prepares students to address the many management issues associated with water resources, including soils, policy and water quality.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### All Specializations

Required G.P.A. = 2.0 overall and 2.5 in the following courses  
Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
PHY 2020	Introduction to Physics	3
or PHY 2004 & 2004L	Applied Physics 1 and Lab	4
MAC 2233	Survey of Calculus 1	3
or MAC 2311	Analytic Geometry and Calculus 1	4
STA 2023	Introduction to Statistics 1	3
SPC 2600	Introduction to Public Speaking	3
ECO 2023	Microeconomics	3
PSY	Psychology	3
or SYG	Sociology	3
ENC 2210	Technical Writing	3
*CGS 2531	Introduction to Computers	3

\*Students with acceptable knowledge of standard computer applications may be exempted from this course. Please contact the School of Forest Resources and Conservation for details.

Undergraduate Coordinator:  
Dr. George Blakeslee  
(352) 846-0845  
gb4stree@ufl.edu  
www.sfrc.ufl.edu

Student Services Coordinator:  
Mae Kiggins  
(352) 846-0847  
maekiggins@ufl.edu

## GEOMATICS

Geomatics is the modern scientific term referring to the integrated approach of measurement, analysis, and management of the descriptions and locations of Earth-based data, often termed spatial data. These data come from many sources, including earth orbiting satellites, air and sea-borne sensors and ground based instruments. Data are processed and manipulated with state-of-the-art information technology using computer software and hardware. Geomatics has applications in all disciplines that depend on spatial data, including environmental studies, planning, engineering, navigation, geology and geophysics, land development and landownership. It is thus fundamental to all geoscience disciplines that use spatially related data, such as Surveying, Geodesy, Remote Sensing & Photogrammetry, Cartography, Geographic Information Systems and Global Positioning Systems. Upon graduating with degrees in Geomatics, students are employed with private firms and governmental agencies. This major is accredited by the Accreditation Board for Engineering and Technology. The Geomatics major is also offered in Ft. Lauderdale, and Plant City.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Geomatics

Required G.P.A. = 2.0 overall and 2.5 in the following courses

Students MUST complete the following courses before transferring:

	MAC 2311	Analytic Geometry & Calculus 1	4
or	MAC 2233	Survey of Calculus 1	3
	MAC 2312	Analytic Geometry & Calculus 2	4
or	MAC 2234	Survey of Calculus 2	3
	PHY 2053 & 2053L	Physics 1 and Lab	4
	PHY 2054 & 2054L	Physics 2 and Lab	4
	SPC 2600	Introduction to Public Speaking	3
	STA 2023	Introduction to Statistics 1	3
	ECO 2023	Microeconomics	3
or	ECO 2013	Macroeconomics	3
	GEO 2200	Physical Geography	3
or	GLY 2010	Physical Geology	3
	Approved Biological Sciences Course		4
	Approved Computer Programming Course		3
	ENC 2210	Technical Writing	3

Undergraduate Coordinator:  
 Dr. George Blakeslee  
 (352) 846-0845  
 gb4stree@ufl.edu  
 www.sfrc.ufl.edu

Student Services Coordinator:  
 Mae Kiggins  
 (352) 846-0847  
 maekiggins@ufl.edu

## GOLF AND SPORTS TURF MANAGEMENT

### Interdisciplinary Studies

This interdisciplinary major combines the study of grasses, soils, water and various pests affecting turf with the study of business and management. Students develop a personalized program in turfgrass science by selecting classes from the departments of Environmental Horticulture, Soil and Water Science, Entomology and Nematology and Plant Pathology. Potential careers include work with golf courses, athletic fields, lawn care companies, parks, agricultural chemical industries, cemeteries, environmental consulting firms, sod farms and government agencies. Students also can pursue graduate study. The Golf and Sports Turf Management major is also offered in Ft. Lauderdale, and Milton.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

#### Golf and Sports Turf Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

	CHM 2045 & 2045L	General Chemistry 1 and Lab	4
	BOT 2010C	General Botany 1 and Lab	4
or	BSC 2010 & 2010L	General Biology 1 and Lab	4
	BOT 2011C	General Botany 2 and Lab	4
or	BSC 2011 & 2011L	General Biology 2 and Lab	4
	MAC 1147	Precalculus Algebra and Trig	4
or	MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or	MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
	PHY 2004	Applied Physics 1	3
or	PHY 2020	Introduction to Principles of Physics	3
	ECO 2023	Microeconomics	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

Undergraduate Coordinator:  
Jason Dettman-Kruse  
352-392-1831 ext. 261  
jkd@ufl.edu

Student Services Coordinator:  
Lisa Hall  
(352) 392-1831 ext. 333  
lhall@ufl.edu

## HORTICULTURAL SCIENCE

Horticultural Production  
Horticultural Science  
Organic Crop Production  
Plant Molecular and Cellular Biology

Students in the Horticultural Sciences major study the biology, production, processing and marketing of fruits and vegetables, preparing for a variety of careers in the green industry.

**Horticultural Production** is a comprehensive specialization for students planning careers in any phase of the fruit and vegetable industry. This specialization emphasizes crop production and management. Career options include production management, agricultural sales, marketing, technical representation and many other opportunities.

**Horticultural Science** offers students a generalized program, covering growth and development of all horticultural crops. This is a flexible option that can be tailored to individual students' interests and career objectives. Career options include greenhouse management, crop production, biological research, commodity marketing, retail and agricultural chemical sales, and produce brokering.

**Organic Crop Production** emphasizes the cultural practices that maintain ecological and economic balance in horticultural crop production. This is a flexible option with many electives available to meet educational and career objectives. Individuals in this specialization will be prepared for a range of careers related to conventional, sustainable and organic crop production.

**Plant Molecular and Cellular Biology** focuses on the molecular aspects of crops, including crop growth, development, and cultivar improvement. This specialization prepares students for careers in laboratory research and is also excellent preparation for graduate study.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Horticultural Production

### Horticultural Science

### Organic Crop Production

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
or BOT 2010C	General Botany 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
or BOT 2011C	General Botany 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
ECO 2023	Microeconomics	3
PHY 2004	Applied Physics 1	3
or PHY 2020	Introduction to Principles of Physics	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

**Plant Molecular and Cellular Biology**

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>
<b>PHY 2048 &amp; 2048L</b>	<b>Physics 1 with Calculus and Lab</b>	<b>4</b>
or <b>PHY 2053 &amp; 2053L</b>	<b>Physics 1 and Lab</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

<b>SPC 2600</b>	<b>Introduction to Public Speaking</b>	<b>3</b>
<b>ENC 2210</b>	<b>Technical Writing</b>	<b>3</b>

Undergraduate Coordinator:  
Dr. Rebecca Darnell  
rld@ufl.edu  
(352)-392-1928 ext. 224  
www.hos.ufl.edu

Student Services Coordinator:  
Curtis Smyder  
curtisr@ufl.edu

## LANDSCAPE AND NURSERY HORTICULTURE

Environmental Horticulture Operations

Landscape and Nursery Management

Public Garden Management

Restoration Horticulture

Landscape and Nursery Horticulture exposes students to the art and science of breeding, propagating, installing, and maintaining plants that are used to enhance and improve the human environment. This major combines the study of plant sciences with business, management, and communications courses. Students select classes from Environmental Horticulture, Agribusiness, Agricultural Communications, and Landscape Architecture. Additional supporting coursework in technical agriculture is provided by Soil and Water Sciences, Entomology and Nematology, Forest Resources and Conservation, Plant Sciences, and Wildlife Ecology and Conservation. Job opportunities are plentiful for individuals with targeted educational backgrounds and experience in the field of environmental horticulture. The Landscape and Nursery Horticulture major includes four specializations: Landscape and Nursery Management, Public Garden Management, Environmental Horticulture Operations and Restoration Horticulture offered in Gainesville. The Landscape and Nursery Management and Environmental Horticulture Operations options are also offered at Milton, Ft. Lauderdale, Plant City and Apopka.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Environmental Horticulture Operations

### Landscape and Nursery Management

### Public Garden Management

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
BOT 2010C	General Botany 1 and Lab	4
or BSC 2010 & 2010L	General Biology 1 and Lab	4
BOT 2011C	General Botany 2 and Lab	4
or BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
ECO 2023	Microeconomics	3
PHY 2004	Applied Physics 1	3
or PHY 2020	Introduction to Principles of Physics	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

**Restoration Horticulture**

Required G.P.A. = 2.0 overall and 2.0 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BOT 2010C</b>	<b>General Botany 1 and Lab</b>	<b>4</b>
<b>BOT 2011C</b>	<b>General Botany 2 and Lab</b>	<b>4</b>
<b>MAC 2233</b>	<b>Survey of Calculus</b>	<b>3</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>
<b>PHY 2004</b>	<b>Applied Physics 1</b>	<b>3</b>
<b>or PHY 2020</b>	<b>Introduction to Principles of Physics</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

Undergraduate Coordinator:

Dr. Michael Kane  
(352) 392-1831 ext. 205  
micropro@ufl.edu  
<http://hort.ifas.ufl.edu>

Student Services Coordinator:

Lisa Hall  
(352) 392-1831 ext. 333  
lhall@ufl.edu

## MICROBIOLOGY AND CELL SCIENCE

This major involves the study of bacteria, plant and animal cells, and viruses. Students majoring in Microbiology and Cell Science complete most of the preprofessional course requirements for medical and dental school and are also well-prepared for graduate school. Departmental electives offer the opportunity to focus on specific areas such as the sources and carriers of infectious diseases.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Microbiology and Cell Science

Required G.P.A. = 2.0 overall and 2.5 in the following courses with a grade of C or better in each. Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 2311	Analytic Geometry and Calculus 1	4

**Please note: a grade of “C” or better is required in the above listed courses.**

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences, a grade of C or higher is required in each.

*CHM 2210	Organic Chemistry 1	3
CHM 2211 & 2211L	Organic Chemistry 2 and Lab	5
PHY 2053 & 2053L	Physics 1 and lab	4
or PHY 2048 & 2048L	Physics with Calculus 1 and Lab	4
PHY 2054 & 2054L	Physics 2 and lab	4
or PHY 2049 & 2049L	Physics with Calculus 2 and Lab	4
ECO 2023	Microeconomics	3
or ECO 2013	Macroeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

\*Students planning to take this course at the community college are strongly advised to complete both organic chemistry courses prior to transferring instead of splitting the sequence between institutions.

Undergraduate Coordinator:  
Dr. William Gurley  
352-392-1568  
wgurley@ufl.edu  
<http://microcell.ufl.edu>

Administrator of Undergraduate Programs:  
Christine A. Holyoak  
(352) 392-1906  
cholyoak@ufl.edu

## NATURAL RESOURCE CONSERVATION

Working in close cooperation with an academic adviser, Natural Resource Conservation (NRC) students prepare programs of study according to their educational and career goals, or they follow one of several specialized options in environmental education, wetland ecosystems, ecotourism, landscape ecology, environmental pre-law, computer information systems, or biology education.

Based on their program of study, NRC students are assigned to faculty advisers in the School of Forest Resources and Conservation or in the Department of Wildlife Ecology and Conservation. The NRC major also is available at UF/IFAS West Florida Research and Education Center at the Pensacola Junior College -Milton campus, and at the IFAS Education Center at Hillsborough Community College - Plant City campus. NRC students find employment in government agencies, consulting firms, nonprofit conservation groups and environmental education programs. Many NRC students pursue advanced degrees in the biological, ecological, and social sciences, as well as the professional areas of education and law.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Natural Resource Conservation

Required G.P.A. = 2.0 overall and 2.5 in the following courses.

Students MUST complete the following prerequisites courses before transferring:

<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2233</b>	<b>Survey of Calculus</b>	<b>3</b>
or <b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>SPC 2600</b>	<b>Introduction to Public Speaking</b>	<b>3</b>
<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>
<b>PHY 2020</b>	<b>Introduction to Principles of Physics</b>	<b>3</b>
or <b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>
<b>PSY</b>	<b>Psychology</b>	<b>3</b>
or <b>SYG</b>	<b>Sociology</b>	<b>3</b>
<b>*CGS 2531</b>	<b>Introduction to Computers</b>	<b>3</b>

\*Students with acceptable knowledge of standard computer applications may be exempted from this course. Please contact the School of Forest Resources and Conservation for details.

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences.

ENC 2210	Technical Writing	3
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School of Forest Resources and Conservation

Wildlife Ecology and Conservation

Undergraduate Coordinator:  
Dr. George Blakeslee  
(352) 846-0845  
gb4stree@ufl.edu  
www.sfrc.ufl.edu

Student Services Coordinator:  
Mae Kiggins  
(352) 846-0847  
maekigginsufl.edu

Undergraduate Coordinator:  
Dr. Mike Moulton  
(352) 846-0571  
moultonm@ufl.edu  
www.wec.ufl.edu

## PACKAGING SCIENCE

Virtually every consumer product today is wrapped, bagged, boxed, packaged and then shipped in some way. Modern industry relies on packaging science to contain, protect, preserve or enhance the value of its goods as they move from factory to consumer. Students in Packaging Science will learn to combine innovation and science to resolve real-world packaging challenges utilizing the latest technology in the Packaging Science laboratory. The curriculum also incorporates important business courses to better prepare students for a wide variety of careers. The program helps students to obtain industry internships which allow them to benefit from real-world experiences while networking with potential employers.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Packaging Science

Required G.P.A. = 2.0 overall and 2.0 in the following course

Students MUST complete the following courses before transferring:

<b>BSC 2007 &amp; 2009L</b>	<b>Biological Sciences 1 and Lab</b>	<b>4</b>
<b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>
<b>PHY 2005 &amp; 2005L</b>	<b>Applied Physics 2 and Lab</b>	<b>4</b>
<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

STA 2023	Introduction to Statistics 1	4
ECO 2013	Macroeconomics	3
ECO 2023	Microeconomics	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ACG 2021C	Introduction to Financial Accounting	4
PSY 2012	General Psychology	3

Undergraduate Coordinator:

Dr. Bruce Welt  
(352) 392-1864 ext. 111  
bwelt@ufl.edu  
www.pkg.ufl.edu

Student Services Coordinator:

Mary Hall  
(352) 392-1864 ext. 114  
mehall@ifas.ufl.edu

## PLANT SCIENCE

Agronomy  
Plant Pathology

Plant science provides a foundation in crop production and protection sciences leading to a variety of careers in agriculture, including professional and graduate study. Career opportunities are diverse and include positions in academia, environmental policy and regulation, agribusiness, consulting, field and laboratory technical support, international agriculture, production agriculture and pest management. Plant Science is supported by two departments: Agronomy and Plant Pathology.

**Agronomy** offers students opportunities to learn methods of genetic improvement (traditional and molecular) and production management of food, feed, forage and fiber crops. Aquatic and terrestrial weed management, optimizing management practices (including energy utilization, nutrient management, tillage for soil and water conservation), sustainability and environmental issues are emphasized.

**Plant Pathology** prepares students to diagnose plant diseases, identify microorganisms and environmental factors that cause disease in plants and study the molecular and genetic principles governing infection and development of plant disease and disease epidemics. Students learn the principles needed to develop and prescribe environmentally safe methods and materials for avoiding or treating plant diseases in agricultural and urban environments.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Agronomy Plant Pathology

Required G.P.A. = 2.0 overall and 2.0 in the following course

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
BOT 2010C	General Botany 1 and Lab	4
or BSC 2010 & 2010L	General Biology 1 and Lab	4
BOT 2011C	General Botany 2 and Lab	4
or BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 1147	Precalculus Algebra and Trig	4
or MAC 1140 & MAC 1114	Precalculus Algebra and Trig	6
or MAC 1105 & MAC 1114	College Algebra and Trigonometry	6
ECO 2023	Microeconomics	3
PHY 2004 & 2004L	Applied Physics 1 and Lab	4

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
MAC 2233	Survey of Calculus 1	3
or STA 2023	Introduction to Statistics 1	4
or CGS 2531	Introduction to Computers	3

Undergraduate Coordinator: Agronomy  
Dr. Ken Buhr  
(352) 392-1811 ext. 214  
klb@ufl.edu  
<http://agronomy.ifas.ufl.edu/undergrad.html>

Undergraduate Coordinator: Plant Pathology  
Dr. James W. Kimbrough  
(352) 392-2158  
jkw@ifas.ufl.edu  
<http://plantpath.ifas.ufl.edu>

## SOIL AND WATER SCIENCE

The Soil and Water Science Department offers a single curriculum with core courses stressing fundamentals of science as applied to the study of soil and water. Electives, constituting over a fourth of the student's junior/senior level requirements, are then selected with emphasis on a particular aspect of soil and water science. Electives may include soil, water and land use (with accent on natural resources and the environment); environmental soil and water management (with accent on agricultural and other applied aspects of soil and water science); physical sciences (with accent on chemistry, physics and mathematics); and biological sciences (with accent on microbiology, botany and/or other biological sciences). Other areas of emphasis also may be developed.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Soil and Water Science

Required G.P.A. = 2.0 overall and 2.0 in the following course

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>PHY 2004 &amp; 2004L</b>	<b>Applied Physics 1 and Lab</b>	<b>4</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

MCB 2000 and 2000L	Microbiology and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3

Undergraduate Coordinator: Dr. Mary E. Collins  
(352) 392-1951 ext. 244  
mec@ufl.edu  
<http://soils.ifas.ufl.edu>

## STATISTICS

A major in statistics is offered through the College of Agricultural and Life Sciences. Statisticians work in a variety of fields, including agriculture, natural resources, economics, medicine, government, business, education and law. For example, statistical methods are widely used in the setting of governmental regulations, evaluating educational outcomes, and assessing the expected performance of new agricultural products or drugs. Statisticians help determine the sampling and data collection methods of research studies as well as monitor the execution of the studies and the analysis of the resulting data, and advise on the strengths and limitations of the results. In this way, statisticians help investigators effectively utilize resources to answer a question while also keeping them from being misled by false impressions. Statisticians study the mathematics of numerical data collection, organization, and interpretation. They must understand the nature of uncertainties in data collection and analysis and be able to draw conclusions in the context of particular applications. In addition to understanding mathematics and computing, a statistician must have sufficient background in other application areas to enable communication with researchers in that area.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Statistics

Required G.P.A. = 2.0 overall and 2.5 in the following courses, with a C or better in each. Students MUST complete the following courses before transferring:

<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>MAC 2312</b>	<b>Analytic Geometry and Calculus 2</b>	<b>4</b>
<b>MAC 2313</b>	<b>Analytic Geometry and Calculus 3</b>	<b>4</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences, grades of C or better are required in the following courses.

BSC 2007 & 2009L	Biological Sciences 1 and Lab	4
BSC 2008	Biological Science	3
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
ECO 2023	Microeconomics	3
CHM 1030	Basic Chemistry Concepts and Apps 1	3
CHM 1031	Basic Chemistry Concepts and Apps 2	3
or PHY 2020	Introduction to Principles of Physics	3

Undergraduate Coordinator: Dr. Ronald Randles  
(352) 392-1941 ext. 213  
rrandles@stat.ufl.edu  
[www.stat.ufl.edu/academics/ugrad/undergrad\\_prog.shtml](http://www.stat.ufl.edu/academics/ugrad/undergrad_prog.shtml)

## WILDLIFE ECOLOGY AND CONSERVATION

Biology Education  
Preprofessional  
Wildlife Conservation  
Wildlife Ecology

**Biology Education** completes the requirements for a Bachelor of Science with a major in Wildlife Ecology and Conservation and a minor in Secondary Education. This degree satisfies the subject matter requirements for biological science education certification; completion of a Master of Education fulfills the certification requirements.

**Preprofessional** includes prerequisite course work for admission to veterinary medicine, pharmacy, dentistry or medicine. Requirements for certification as an associate wildlife biologist can be met by completing additional courses.

**Wildlife Conservation** allows students to select a secondary focus in human dimensions of wildlife conservation, land management, or application of quantitative sciences to conservation. Students also can satisfy requirements for certification as an associate wildlife biologist by selecting specific electives.

**Wildlife Ecology** allows graduates to qualify for certification by The Wildlife Society as an associate wildlife biologist and for professional employment or graduate education. The objective of this program is to educate students in the biological, social, physical and management sciences and enable them to excel at both scientific and human dimensions of managing wildlife and related natural resources.

**Students must complete an Associate of Arts degree or 60 transferable hours, meet the required grade point average (G.P.A.), complete the required prerequisite courses, and meet the foreign language and immunization policies of the University of Florida before transferring.**

### Biology Education

Required G.P.A. = 2.0 overall and 2.5 in the following courses

Students MUST complete the following courses before transferring:

CHM 2045 & 2045L	General Chemistry 1 and Lab	4
CHM 2046 & 2046L	General Chemistry 2 and Lab	4
ECO 2023	Microeconomics	3
BSC 2010 & 2010L	General Biology 1 and Lab	4
BSC 2011 & 2011L	General Biology 2 and Lab	4
MAC 2311	Analytic Geometry and Calculus 1	4
STA 2023	Introduction to Statistics 1	3

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
PHY 2004 & 2004L	Applied Physics 1 and Lab	4
PHY 2005 & 2005L	Applied Physics 2 and Lab	4

### Preprofessional

Required G.P.A. = 2.0 overall and 2.5 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>CHM 2046 &amp; 2046L</b>	<b>General Chemistry 2 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

PHY 2053 & 2053L	Physics 1 and Lab	4
PHY 2054 & 2054L	Physics 2 and Lab	4
SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3
*CHM 2210	Organic Chemistry 1	3
CHM 2211 & 2211L	Organic Chemistry 2 and Lab	5

\*Students planning to take this course at the community college are strongly advised to complete both organic chemistry courses prior to transferring instead of splitting the sequence between institutions.

### Wildlife Conservation

#### Wildlife Ecology

Required G.P.A. = 2.0 overall and 2.5 in the following courses

Students MUST complete the following courses before transferring:

<b>CHM 2045 &amp; 2045L</b>	<b>General Chemistry 1 and Lab</b>	<b>4</b>
<b>BSC 2010 &amp; 2010L</b>	<b>General Biology 1 and Lab</b>	<b>4</b>
<b>BSC 2011 &amp; 2011L</b>	<b>General Biology 2 and Lab</b>	<b>4</b>
<b>MAC 2311</b>	<b>Analytic Geometry and Calculus 1</b>	<b>4</b>
<b>STA 2023</b>	<b>Introduction to Statistics 1</b>	<b>3</b>
<b>ECO 2023</b>	<b>Microeconomics</b>	<b>3</b>

The following courses may be completed at the community college, but are not required for admission to the College of Agricultural and Life Sciences:

SPC 2600	Introduction to Public Speaking	3
ENC 2210	Technical Writing	3

Undergraduate Coordinator:

Dr. Michael Moulton  
(352)-846-0571  
moultonm@ufl.edu  
www.wec.ufl.edu

Student Services Coordinator:

Claire Williams  
(352) 846-0633  
williamsc@wec.ufl.edu

## NOTES

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