



Syllabus

Annual and Perennial Gardening

ORH 4804/5026C – Spring, odd years – 3 Credits

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Course Description

Credits: 3: Prereq: Junior Standing

Identification, propagation selection, use and management of annuals, perennials, vines, ornamental grasses, geophytes, and ground covers in the landscape. Hands-on care for plants in the outdoor laboratory. Learn the irrigation, fertilization, pruning and cultural needs of these popular plants.

Meeting Location: PSF 5, Greenhouse Complex, Wednesdays 2:00-5:00 pm. Hybrid course will offer designated lectures online to complement live laboratory learning experiences.

Learning Objectives: *At the conclusion of this course, the student will be able to:*

Lecture

- Recognize and evaluate major annual and perennial plant categories and choose annual and perennial plants suited to diverse regional climates.
- Identify, compare and contrast retail availability of annual and perennial plants across geographic regions and growth zones.
- Explain the importance of annual and perennial plant growth characteristics in assessing the potential use of problematic (invasive) annuals and perennials.
- Identify, describe, and evaluate various types of specialty gardens and the key concepts, designs, and plants that are particular to each.
- Assess annual and perennial plant performance in existing landscapes, develop maintenance and installation design recommendations and compile lists of recommended plants based on application of basic landscape design principles related to specialty annual and perennial gardens.

Lab

- Identify and differentiate 50+ annual and perennial plant species by common and scientific name
- Manage annual and perennial plant propagation and production via crop management activities, evaluation of crop performance and interpretation of plant growth performance across geographic regions and growth zones.
- Critique annual and perennial plant use and practice implementation of garden design concepts through the development of specialty garden designs, compiling lists of recommended plants, and participating in critiques of specialty garden designs.

Useful References (not required)- *Additional readings are listed by week.

Armitage, A.M. The Color Encyclopedia of Garden Plants: Annuals/Perennials. Timber Press, Inc. Portland, Oregon.

Armitage, A.M. Armitage's Garden Perennials, 2nd ed. Timber Press, Inc. Portland, Oregon.

Black, R. and E. Gilman. Your Florida Guide to Bedding Plants. UF/IFAS (ISBN: 0916287173).

Brickell, C. The American Horticultural Society-A-Z Encyclopedia of Garden Plants. DK Publishing, New York, NY.

Crawford, P. Best Garden Color for Florida. vol. 2. Color Garden Publishing, Inc., Lake Worth, FL.

Crawford, P. Container Gardens for Florida. Color Garden Inc. Color Garden Publishing, Inc., Lake Worth, FL.

MacCubbin, T. and G. Tasker. Florida Gardener's Handbook: All you Need to Know to Plan, Plant & Maintain a Florida Garden, 2nd ed.. Cool Springs Press, Franklin, TN.

Nau, J., B. Calkins, A. Westbrook. 2021. Ball Red Book, Crop Culture and Production, vol. 2., 19th ed. Ball Publishing, West Chicago.

Park Brown, S. and R. Schoellhorn. Your Florida Guide to Perennials. University Press of Florida.

Still, S.M. Manual of Herbaceous Ornamental Plants, 4th ed. Stipes Publishing, Champaign, IL

Useful Websites

CANVAS: elearning.ufl.edu (for syllabus, lectures, handouts, additional readings, assignments, discussions, etc.)

Ball Seed Production Guides: <http://www.ballseed.com/QuickCulture/ProductionGuides>.

Proven Winners Plant Search: <https://www.provenwinners.com/plants/search>.

Park Seed Flower Guide: <http://parkseed.com>.

Wilson's teaching and research website: <https://irrecenvhort.ifas.ufl.edu/>.

Student Responsibilities

- *Attendance:* You are expected to attend and participate in scheduled classes, <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.
- *Preparation:* You are responsible for retrieving PP lecture notes and handouts through e-learning.
- *Plant ID Quizzes:* In order to do well in this lab, you will need to spend considerable time studying living plant samples and PowerPoints to practice rote memorization of the scientific and common names.
- *Submitting assignments:* Unless otherwise stated, all assignments must be turned in through e-learning.
- *Extra credit assignments:* The course requirements are clearly outlined in the syllabus. There is no option for Extra Credit Assignments.

- **Plant Identification:** Students will be exposed to almost 200 different plant species during the semester in both lecture and lab. A core set of plants representing several key groups of annual and perennial species are presented in CANVAS. During lab, students will learn plants in groups 10.

Student Evaluation Format

Lecture will consist of 2 exams comprised of multiple choice, short answer, true/false, matching and short essay questions. Any questions regarding your performance on any test are welcome. Please arrange an appointment whenever you need help or see instructor after class.

Lab will consist of 3 Plant ID quizzes. On plant quiz days, plan on taking a 20-minute live quiz in Mehrhof or Fifield Gardens followed by other scheduled lab activities. The quizzes are cumulative, meaning that by the end of the semester the final identification quiz will cover all 50 plants.

There are 5 assignments that are outlined below. The use of tools and some outdoor, physical work can be expected. You will be notified when these outdoor activities are scheduled so that you can dress appropriately.

Germination of Annual/Perennial Seed: Each student will germinate one or more flats of seed from your chosen species (seeds provided in lab) and monitor the four stages of plug development, recording germination percentage by week. You will be responsible for the care of the seeded trays and present the seedling performance as an online PowerPoint presentation. This may be narrated and/or written as text within slides or slide comment boxes, or any other visual format. This assignment is worth 20 points, should be submitted in canvas, and will be graded using a rubric.

Individual 65- gal Container Project: Each student will be given a large container pot for greenhouse plants to be transplanted into (you will choose the design and plants for your individual container). You will be responsible for caring for your container garden. This includes ensuring automatic irrigation is working, fertilizing, weeding, protecting from unusual cold temperatures, etc. Students will orally present their container garden to the class (in person) providing a written list of the species (submit in canvas) and why they were chosen. What would you have done differently, if anything? This assignment is worth 20 points and will be graded using a rubric.

Plant Lecture Presentation: Students will work in groups of 2-3 and choose a single plant species from the comprehensive plant list to teach to the class. Teams should provide a detailed species report within a PP document for their live class presentation. (Plant selection should avoid plants that are already being covered by the instructor during lectures). Your plant lecture should include: scientific name, common name, botanical description, growth form, size, flower description, culture, tolerances, and use. Information on hybrid parentage, closely related species, or other available cultivars is encouraged, as are visual aids. This assignment is worth 20 points and will be graded using a rubric. A pdf of the slide presentation should be posted in canvas along with the team members to ensure everyone gets credit.

Field Trip: During a scheduled lab day we will take a field trip to a commercial plug producer or to an AAS ornamental trial site. Students will summarize the operation in a 1- page report and submit the report the following week in CANVAS. This assignment is worth 10 points.

Pre and Post Course Assessment- a short list of questions to assess your knowledge before and after the course. These are each worth 5 pts and should be taken in Canvas.

Grading Summary- Grading follows University standards and will be based on the following:

Distribution of Points

Lecture Exams	200
Mid-term exam (100 points)	
Final exam (100 points)	
Lab Plant ID Quizzes	80
Quiz 1=20 pts, Quiz 2=20 pts, Quiz 3=40 pts	
Project Assignments	80
Plant lecture (20)	
Germination of annual/perennial seed (20)	
Container design and presentation (20)	
Field trip report (10)	
Pre (5) and post (5) course assessments (10)	

Total Course Points.....360

TOTAL POINTS	PERCENTAGES	ASSIGNED GRADE
336.5 – 360.0	93.5–100.0%	A
301.0 – 336.4	89.5–93.4%	A-
250.0 – 300.9	86.5–89.4%	B+
221.0 – 249.9	82.5–86.4%	B
191.5 – 220.9	79.5–82.4%	B-
169.0 – 191.4	76.5–79.4%	C+
145.7 – 168.9	72.5–76.4%	C
120.9 – 145.6	69.5–72.4%	C-
101.7 – 120.8	66.5–69.4%	D+
83.0 – 101.6	62.5–66.4%	D
63.0 – 82.9	59.5–62.4%	D-
<62.9	<59.4%	E

*Graduate students will conduct a special project worth 35 points in addition to the assignments. Total possible course points for graduate students are 395 points.

Annual and Perennial Gardening Schedule

Week	Date	Lecture Topics	Live Lectures/Lab Activity	Quizzes/Assignments/Reading	Point Value
1	Jan 15	Course Overview- Syllabus, Assignments, Rubrics Important Terms and Concepts, USDA cold hardiness zones, and photoperiodism-Thetford (online)	Introduction of students/faculty Brian Owens-safety training Tour of greenhouses Plug planting, seed germination	Read: North FL Gardening https://edis.ifas.ufl.edu/ep451 Do: Pre-course Assessment (5 pts)	5
2	Jan 22	Nomenclature review (in person and online) Life cycles of annuals and perennials- Thetford (online) Cool Season Annuals- Parts I and II-Thetford (online)	Plug and/or seed planting <i>continued</i> Wilson-Plant ID List 1 (plants 1-10 Live)	Read: lab notebook section on nomenclature Read: Gardening with Annuals in Florida https://edis.ifas.ufl.edu/mg319	
3	Jan 29	Propagation and Production systems – Thetford (online)	Morphology review (Schutzman-live)	Read: lab notebook section on morphology, Chose 4 species from class and practice	
4	Feb 5	Installation and Maintenance of Bedding Plants- Pearson (online) Plant group Annual Asteraceae	Wilson-Plant ID List 2 (plants 11-20 Live)		
5	Feb 12	Basic Principles of Landscape Design – Hansen (live)		Read: Basic Principles of Landscape Design https://edis.ifas.ufl.edu/mg086 Mid-term Study Guide	20

		Plant group Euphorbiaceae and Verbenaceae		Plant ID Quiz 1 (20 pts)	
6	Feb 19	Geophytes (Bulbs, Corms and Tubers) – Thetford (online) Plant Group: Bulbs, corms and tubers	Wilson-Plant ID List 3 (plants 21-30)	Read: Bulbs for Florida https://edis.ifas.ufl.edu/topic_bulbous_flowers Exam 1 (100 pts)	100
7	Feb 26		ALL DAY FIELD TRIP- LOCATION TBD		
8	March 5	Ornamental Grasses – Thetford (online) Perennials, Vertical Gardening Plant Group Crassulaceae	Wilson-Plant ID List 4 (plants 31-40)	Read: Considerations for Selection and Use of Ornamental Grasses https://edis.ifas.ufl.edu/ep233 Read: Gardening with Perennials in Florida https://edis.ifas.ufl.edu/mg035 Field Trip report due Student Germination Reports due (post in canvas)	10 20
9	March 12	Container Gardening- Wilber Plant Group Acanthaceae	Student large container garden presentations (on site by containers)	Read: Container Gardens for Outdoor Spaces https://edis.ifas.ufl.edu/ep326 Plant ID Quiz 2 (20 pts)	20 20
10	March 19	SPRING BREAK!			
11	March 26	Groundcover Alternatives to Turfgrass (online) Rain Gardens (online) Wildflower Gardening Plant group - Warm Season Annuals Plant group - Lamiaceae	Landscape Installation	Container garden plant list due (post in canvas). Present to class.	
12	April 2	Plant Molecular Breeding of Snapdragon and Begonia- Dr. Alfred Huo (online)	Wilson-Plant ID List 5 (plants 41-50) Student Plant Lectures (20 pts) live	Read: Development of a model mutagenesis system for snapdragon https://edis.ifas.ufl.edu/publication/ep584 Read: A beginners guide to begonia. https://edis.ifas.ufl.edu/publication/ep581 Student Plant Lectures (present in person, post slides in canvas)	20
13	April 9	Pollinator Gardening Wilson (live)	Student Plant Lectures- <i>continued</i>		
14	April 16	Gardening with non- invasive cultivars- Wilson (live)	Last Day of Lab	Plant ID Quiz 3 (comprehensive) (40 pts)	40

15	April 23	Last Day of Class	Exam 2 Greenhouse cleanup; take home plants	Do: Post Course Assessment (5 pts) Exam 2	5 100
				Total Points	360

*UF Schedule: Classes begin Jan 9; Drop add Jan. 13-17; classes end April 23; Reading days April 24-25; Final exams April 26-May 2; Holiday Jan. 20, Spring Break March 15-22.

Course Policies and Campus Resources

Materials and Supplies Lab Fee: \$75.00

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the “Get Started With the DRC” webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

In-Class Recording:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal education use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and deliver by an instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless, of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Online Course Evaluation Process:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty:

UF students are bound by The Honor Pledge which states “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the [*UF Conduct Code website for more information*](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <https://policy.ufl.edu/regulation/4-040/>).

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Campus Helping Resources:

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

Whole Gator App:

The Whole Gator and website and app connect UF students with resources dedicated to supporting overall

health and well-being. In addition to many of the resources below it also has strategies to practice self-care. <https://one.ufl.edu/whole-gator/topics>

Health and Wellness:

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non- crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).
- University Police Department: [Visit UF Police Department website](#) or call 352- 392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273- 4450.
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Academic Resources:

- E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392- 4357 or via e-mail at helpdesk@ufl.edu.
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392- 6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; [Visit the Complaint Portal webpage for more information](#).
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information](#).

Student Complaints:

- Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>