Texas A&M University
Departmental Request for a New Course
Undergraduate + Graduate + Professional
• Submit original form and attach a course syllabus.

1. This request is submitted by the Department of
   Horticultural Sciences

2. Course prefix, number and complete title of course:
   HORT 611 Urban Landscape Ecology

3. Course description (not to exceed 50 words):
   Basic concepts and current topics in urban landscape ecology. Urban and fragmented ecosystems ranging from individual plant responses to landscape scale changes. Students will participate in discussions and critique recent literature in the field of urban plant ecology.

4. Prerequisite(s):
   An undergraduate or graduate class in plant biology or plant ecology is recommended
   Cross-listed with:

   Cross-listed courses require the signature of both department heads.

5. Is this a variable credit course?   □ Yes    ☒ No
   If yes, from _______ to _______

6. Is this a repeatable course?   □ Yes    ☒ No
   If yes, this course may be taken _______ times.
   Will this course be repeated within the same semester?   □ Yes    ☒ No

7. Has this course been taught as a 489/689?   ☒ Yes    □ No
   If yes, how many times?   1
   Indicate the number of students enrolled for each academic period it was taught.   07a=5

8. This course will be:
   a.   required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b.   an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   MS, MA, PhD HORT

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix   Course #   Title (excluding punctuation)

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
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</thead>
<tbody>
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<td>3</td>
<td>0</td>
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<td>2</td>
<td>1 5 2 0 0 9 - 1 0 0 0 3 6 3 2</td>
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</tbody>
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Approval recommended by:

Head of Department Date

Head of Department (if cross-listed course) Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 10/08
HORT 611 Urban Landscape Ecology

Prerequisites
An undergraduate or graduate class in basic plant biology and/or plant ecology is recommended.

Instructor
Dr. Astrid Volder
Office: 405 Horticulture/Forest Science Building (HFSB)
Phone: 845-9277
Email: a-volder@tamu.edu

Office hours
I will set aside time for open office hours after class. However, please feel free to send me email anytime with questions, comments, or to arrange a meeting in person. I will typically reply to email within 1-2 days.

Web-based course materials
A companion website for the course is located in WebCT. As a registered student, you will have access to the website through the internet. The website is an essential course tool.
1. Use the following URL to access WebCT Vista:
   http://elearning.tamu.edu/
2. Click on the "TAMU" link and login using your official TAMU logon id and password.
3. Complete your discussion assignments and find lecture outlines etc., all conveniently online.

Course objectives
Upon completion of this course you will be able to:
- Identify what types of environmental stress are typical for urban landscapes.
- Explain how plants in urban landscapes respond to urban stresses and projected climate change using your knowledge of plant physiology
- Identify what ecosystem services are, what role vegetation plays in providing these services, and which ones are particularly important in urban landscapes
- Create a conceptual diagram of the most important factors affecting plant growth in urban environments.
- Critically analyze and critique recent literature in the fields of global change and urban plant ecology
- Discuss how global change may alter the ecology of urban landscapes.

Course description and format
Hort 611 Topics in Urban Landscape Ecology is a 3-credit lecture course. We will explore basic concepts and current topics in urban vegetation ecology through assigned readings, classroom discussion, lectures and slide shows. We will cover both urban and fragmented ecosystems, from individual plant responses to landscape scale changes. Students are expected to actively participate in the discussions, and find, present, and critique recent literature in the field of urban plant ecology.

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 10/08
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RESPONSIBILITIES AND EVALUATION

1) Required reading
You will read the assigned material before each class period and participate in discussions, lectures, and activities. To excel in this course, attendance at all class sessions is mandatory. The lectures and in class activities will usually focus on the same topics, but may address either the specific reading or completely different materials, depending on the comprehensiveness or importance of the reading, its difficulty, and the total information that needs to be covered. Therefore, do not assume that materials in the readings will be covered in class. In addition to the assignments, supplemental readings may be assigned for some topics. These readings will be posted on the course website.

2) Discussion questions and comments
For each discussion class period (see schedule) you will prepare one question or comment about the assigned papers. These daily questions or comments should be brief and should be posted online on WebCT Vista (or handed in at the start of class only if computer problems arise). We will address the questions in class discussions as time permits at the beginning of the class session. The objectives of these required "daily questions" are:

- to help you in studying the course material and enhance your classroom experience
- to provide practice at critical thinking and evaluation
- to provide a gauge and feedback on your level of understanding
- to help move classroom focus to issues you find interesting and important

In addition, I will attempt to post replies online to your questions. Please visit the discussion post area often to read the posted discussion questions and participate in the discussions.

What types of questions?
A good question or comment indicates some depth of thought. A question could be something that is not clear to you (e.g., "Why are some plants more sensitive to temperature changes than other plants?") or that seems to contradict something else we've read or covered in lecture (e.g., "how can we reconcile these results with those of Sarah Smith who found opposite results in Europe?"). Other comments could for instance, indicate what you think is an important policy implication or linkage to other aspects of urban ecology, public perception, etc.
What types of questions? - continued
A good question or comment indicates depth of thought and evidence of critical thinking. The questions are due one hour prior to the beginning of each class period, but you are encouraged to submit the question early for better discussion. Late submissions will not be accepted. The questions are graded for accuracy (make sure you read the assigned papers carefully), relevancy (do they relate to the paper?), and depth of thought (have you thought about possible answers?), and your active participation in the online discussion of the questions. For example, asking for a definition you could look up in the background literature will not earn as many points as an in-depth question discussing whether the daily mean or daily maximum temperature is more important for plant stress responses. Responding to questions posed by other people will earn you points as well. Your ten highest scoring questions will be counted for credit (20 points per question, maximum 200 points).

Presentations
You will present several times (depending on the number of students enrolled) throughout the course, depending on the amount of available time slots. Each student is expected to find two original, peer-reviewed, research papers that fit the topic of the day and present the findings of these papers to the class for discussion. It must be clear from the presentation what the hypotheses in the papers were, how the experiments were designed, what the major results were and how these results fit with the topic of the day. You will need to search for additional background information beyond the two papers presented and you should use this information to help your audience (which has not read the papers) understand the framework for the research. You will have to critically evaluate the work presented in the papers and will take the lead in discussing the papers. Please contact me at least one week in advance to make sure that the papers you have chosen are of appropriate length and fit the topic. More information will be given in class and a grading guide will be posted on WebCT. The total points for the presentations is 600, if there is one presentation per student the presentation will be worth 600 points, if there are 2 presentations, each will be worth 300 points, etc. These presentations will be peer-reviewed and graded, which will account for fifty percent of the points!!

3) Evaluation and final grade

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<thead>
<tr>
<th>Course Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Active class participation</td>
<td>200</td>
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<tr>
<td>10 Questions submitted</td>
<td>200</td>
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<tr>
<td>Mid-term</td>
<td>500</td>
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<tr>
<td>Presentations (total)</td>
<td>600</td>
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<tr>
<td>Final exam</td>
<td>800</td>
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<tr>
<td>Total</td>
<td>2300</td>
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Course letter grades*

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Course letter grade</th>
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</thead>
<tbody>
<tr>
<td>≥ 90</td>
<td>A</td>
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<tr>
<td>≥ 80</td>
<td>B</td>
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<tr>
<td>≥ 70</td>
<td>C</td>
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<tr>
<td>≥ 60</td>
<td>D</td>
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<tr>
<td>&lt; 60</td>
<td>F</td>
</tr>
</tbody>
</table>

*I reserve the right to lower the point totals for the letter grade categories.

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@ramu.edu.

Curricular Services – 10/08

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**Other policies**

**Classroom environment.** Please silence cell phones, pagers, and other electronic devices before class. Please respect your fellow classmates by arriving on time and remaining in class the entire period.

**Participation credit.** In order to receive participation credit you have to be present for all sessions unless you have a university excused absence. If you miss a class session, and have a university excused absence, please contact me within 24 hours via e-mail or give me advanced notice.

**Exams and assignments**
All assignments and exams must be written and researched by the individual student. Answers will be checked for cheating (see below). During in-class exams, only pens, pencils and paper will be allowed.

**Late assignments.** No late assignments will be accepted. Credit on late assignments will only be granted for authorized, properly documented, university excused absences.

**Make-up exams.** Make-up exams are not permitted except for properly documented university excused absences. If you are not able to take the exam, please contact me before the scheduled exam time or within a 24-hour period after the scheduled exam period at the latest.

**Appeals.** Appeals for reevaluation of any exam questions will be accepted in writing. You are granted until 5 P.M. on the second full weekday following the return of an exam to present your case. Your argument must be a written statement concerning why you think your answer was right or did not receive the credit it deserved.

**Course incompletes.** The official TAMU regulations are: “The instructor shall give this grade only when the deficiency is due to an authorized absence or other cause beyond the control of the student.”

**Academic Integrity Statement**

**AGGIE HONOR CODE**

“An Aggie does not lie, cheat, or steal or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

Scholarship depends upon open and honest inquiry. Students have an ethical and moral responsibility to avoid cheating and to help prevent others from cheating. Texas A&M University expects academic integrity and strictly enforces policies against any form of scholastic dishonesty (See the Honor System website: http://www.tamu.edu/aggiehonor/). Please review the Student Rules at http://student-rules.tamu.edu/ for more information regarding these policies. Sanctions range from grade penalties (e.g. F*, 0 on an assignment), probation, and expulsion from the University.

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
AGGIE HONOR CODE - continued

The Texas A&M University Student Rules and Honor System define several forms of academic dishonesty, these include:

1. Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise.

2. Fabrication: Making up data or results, and recording or reporting them; submitting fabricated documents.

3. Falsification: Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

4. Multiple Submission: Submitting substantial portions of the same work (including oral reports) for credit more than once without authorization from the instructor of the class for which the student submits the work.

5. Plagiarism: The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

6. Complicity: Intentionally or knowingly helping, or attempting to help, another to commit an act of academic dishonesty.

Americans with Disabilities Act (ADA) Policy Statement
The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall or call 845-1637.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Lecture or Activity</th>
<th>Reading Questions due</th>
<th>Student Presentations</th>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td>Introduction to Urban Landscapes</td>
<td>“Meet and greet” Un-graded quiz</td>
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<td>1b</td>
<td></td>
<td>What is urban?</td>
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<td>2a</td>
<td></td>
<td>Plant responses to their physical environment</td>
<td>Ecosystem Services in Urban Areas General climate; temperature, solar radiation, precipitation</td>
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<td>2b</td>
<td></td>
<td>Urban Soils; texture and structure; problems in urban areas</td>
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<td>3a</td>
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<td>Yes</td>
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<td>3b</td>
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<tr>
<td>4a</td>
<td></td>
<td>Water and soils; water potential; drought and flooding; run-off and pollution in urban systems</td>
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<td>Yes</td>
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<td>4b</td>
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<tr>
<td>5a</td>
<td></td>
<td>Biogeochemical cycles in an (semi) urban environment; the effects of vegetation and environmental changes</td>
<td>Water cycle</td>
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<td>5b</td>
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<td>Yes</td>
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<td>6a</td>
<td></td>
<td>Water quality and conservation – effects of urbanization</td>
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<td>6b</td>
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<td>Yes</td>
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<td>7a</td>
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<td>Carbon, nitrogen and pollutants – effects of urban vegetation</td>
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<td>7b</td>
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<td>Yes</td>
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<td>8a</td>
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<td>Mid-Term exam</td>
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<tr>
<td>8b</td>
<td></td>
<td>Habitat fragmentation and species</td>
<td>Plant species diversity; survey methods, value and importance – role of urban parks &amp; gardens</td>
<td></td>
<td>Yes</td>
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<td></td>
<td>Diversity in (semi) urban environments</td>
<td>Habitat fragmentation – effects of roads &amp; development</td>
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<td>10a</td>
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<td>Invasive plant species in urban habitats</td>
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<td>10b</td>
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<td>11a</td>
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<td>Global climate change – similarities with urban heat island</td>
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<td>11b</td>
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<td>12a</td>
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<td>Carbon sequestration – planting trees</td>
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<td>12b</td>
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<td>13a</td>
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<td>LTER research in urban environments</td>
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<td>13b</td>
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<td>14a</td>
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<td>Integration</td>
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<td>14b</td>
<td></td>
<td>Final Exam (comprehensive)</td>
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</table>

1. Lecture order and topics may vary from the schedule described above.
2. Readings and discussion question postings are to be completed prior to lecture on the date shown. Additional required readings will be assigned for some topics.
3. The number of presentations per student will depend on the number of students signed up for the class.
Dear Dave and Lynette,

Please see the below email from Dr. Ndubisi, the Head of the Department of Landscape Architecture and Urban Planning that he has no objection to offering the course as named.

If you need something else, please feel free to contact me.

Sincerely yours,

Dave

David H. Byrne
Professor
Prunus and Rosa Breeding and Genetics
Basye Chair of Rose Genetics
Department of Horticultural Sciences
Texas A&M University
College Station, TX 77843-2133
Tel. 979-862-3072
Fax 979-845-0627
Stone Fruit Home Page http://aggie-horticulture.tamu.edu/stonefruit/
Rose Breeding Home Page http://aggie-horticulture.tamu.edu/rose/

>>> "Kretzschmar, Myra" <myrak@archmail.tamu.edu> 12/5/2008 4:09 PM >>>
Please see below.

Myra

Myra Kretzschmar, CPS
Assistant to the Department Head
Texas A&M University
College of Architecture
Landscape Architecture and Urban Planning
MS 3137
PH: 979-845-1046
FAX: 979-862-1784

myrak@tamu.edu
From: Ndubisi, Forster  
Sent: Friday, December 05, 2008 3:32 PM  
To: Kretzschmar, Myra; dbyme@ag.tamu.edu  
Cc: Woodfin, Tom  
Subject: RE: HORT 611 - Urban Landscape Ecology

Dear Dr. Byrne:

I have no objections about offering the course.

Thank you,

Forster Ndubisi,  
Dept. Head

__________________________________

From: Kretzschmar, Myra  
Sent: Fri 12/5/2008 1:49 PM  
To: Ndubisi, Forster  
Subject: FW: HORT 611 - Urban Landscape Ecology

Forster,

Here is the email that was mentioned due to the phone call earlier today.

Myra

-----Original Message-----  
From: Dave Byrne [mailto:dbyme@ag.tamu.edu]  
Sent: Friday, December 05, 2008 1:08 PM  
To: myrak@tamu.edu  
Cc: Dave Byrne; HortGraduateStudies HortGraduateStudies; Reed, David W.  
Subject: HORT 611 - Urban Landscape Ecology

Myra,

It was good talking to you about this matter.

One of our faculty - Astrid Volder - has developed a course dealing with the plant stresses encountered in urban environments. This course is being developed to serve both our students as well as those in your programs. She has named the course "Urban Landscape Ecology". I am attaching a copy of the course proposal for your perusal.

At the present time, we teach several other courses with the name landscape in the title: HORT 308 Landscape Plant Materials, HORT 332 Horticulture Landscape Graphics, HORT 425 Landscape Maintenance and Construction, HORT 432/442 Horticulture Landscape Design I and II, and HORT 608 Plants for Landscape Design.
Today I received a telephone call from Dr. Reed requesting an email from Department of Landscape Architecture and Urban Planning indicating that it had no objection in using the word "landscape" in the course title. If this is acceptable to the Department, this email would be needed today to be included at the next meeting that will be considering the approval of this new course.

I appreciate whatever cooperation is possible.

Sincerely yours,

Dave
Associate Head for Research and Graduate Studies

David H. Byrne
Professor
Prunus and Rosa Breeding and Genetics
Basyle Chair of Rose Genetics
Department of Horticultural Sciences
Texas A&M University
College Station, TX 77843-2133
Tel. 979-862-3072
Fax 979-845-0627
Stone Fruit Home Page http://aggie-horticulture.tamu.edu/stonefruit/
Rose Breeding Home Page http://aggie-horticulture.tamu.edu/rose/