Instructor: Mary H. Meyer, professor Horticultural Science, CFANS, 424 Alderman Hall, St. Paul and Minnesota Landscape Arboretum, Chanhassen; phone: 952-443-1447 Arb; 612-624-3665 St. Paul; 763-229-5057 mobile; office hours by appointment.

Class Meeting Times and Location: Monday 6:15 PM- 7:45 PM; 310 Alderman Hall, St. Paul campus.

General Description:

This 3-credit class will meet weekly during Spring Semester 2014 and travel to Britain during Spring Break, March 14-23, 2014. There are no prerequisites for the class and it is open to all U of M students. The overall goals and objectives of this class are:

1. For students learn first-hand what the challenges are in creating and maintaining school gardens.
2. To connect U of M students to community garden projects for the semester, and hopefully long term as well.
3. To examine British methods of successful school gardens, especially their methods of engaging college students in school and community garden projects.
4. For students to have a successful international educational experience.

During the semester, students will visit and learn from developing (new) and existing school garden programs in the Twin Cities. We will be examining the already defined critical elements of successful school gardens. Gardens as well as open green space such as a nature preserves, or a pollinator project, aquaculture and indoor gardening are all possible venues for students to engage with partner schools or community partners. Students will determine the needs, wants, constraints and issues for partner organizations or schools as they establish or advance their school garden projects. During Spring Break, students will visit gardens in the greater London area and learn from the Royal Horticultural Society (RHS) about successful school projects in Britain. By the end of the semester, students will have developed a working list of critical components of successful school gardens and partnered with a school or community garden project in the Twin Cities to examine these issues first-hand, and be able to compare and contrast London and Twin Cities school gardens.

Britain has long been a leader in gardening. The Royal Horticultural Society’s (RHS) Campaign for School Gardening “aims to encourage and support schools to develop and actively use a school garden”. Currently over 13,000 schools are involved with this program. Research from this campaign, which began in 2007, has shown that “Although the benefits of gardening as a teaching tool are many and varied, we’ve identified 3 core areas in which children’s lives are radically improved. They become: 1. Ready to learn 2. Resilient 3. Responsible.” (Gardening in Schools: A Vital Tool to Children’s Learning, RHS, www.rhs.org.uk/schoolgardening). An additional 1,100 communities are involved in the RHS “It’s Your Neighbourhood” campaign.
which “supports local community groups in cleaning up and greening up their immediate local environment.” Britain is a world leader in horticulture and has been on the cutting edge of sustainable gardening for many years. Their interest in supporting horticulture and community gardening is known throughout the world.

Community and school gardening projects have strengthened communities and helped students of all ages to make better food choices, learn new skills, increase self esteem, and to consider careers in not only in horticulture, but food science, agricultural education, and agribusiness. We have much to learn from seeing first-hand how communities in Britain are creating school and community gardens. U of M students need the experiential international and local learning opportunities this class will provide. This class will complement the new Plant Sciences and Sustainable and Organic Food Systems curriculums with an experiential component as well as an international learning experience.

**Student Objectives and Learning Outcomes:**

1. **Student knowledge will increase in the analysis and identification of the issues that must be addressed and overcome for a successful school or community garden program.** Students will learn how the British, especially through the Royal Horticultural Society (RHS), engage students in successful school and community gardens, and how this compares to school garden programs in the U.S.

2. **By visiting specific school gardens, in London and the Twin Cities, students will learn the connections between school gardens and community partners.** Ideally, students will become part of the success of a school garden. Students will identify partner school needs and issues in order to initiate or expand a school garden. Amy Libman, Director of Student Support Services, at the Minnesota Internship Center High School; Kristen Stuenkel, Columbia Heights School District are examples of schools we will partner with as they develop a new/expanding school garden programs.

3. **Students can locate and critically evaluate information.** Students will locate information on school gardens, from the American Horticultural Society’s annual National Youth Gardening Symposium; the USDA’s Resource Area on School Gardens, the Minnesota Landscape Arboretum’s Education Department, Gardening Matters, Minnesota Horticultural Society, and other resources as listed below.

4. **Students can communicate effectively.** Students will compile their findings for in class presentations by leading a discussion on one of the challenging issues school gardens face and compare and contrast this issue in London and Twin Cities school gardens.

5. **Students will develop effective written communications pieces based on their research, site visits and interviews with schools and community partners.** This activity will become part of a website that will be used to continue to advance school gardens, especially with opportunities for U of M students in experiential learning.

6. **Students will understand the role of creativity, innovation, discovery, and expression across disciplines.** Although horticulture is a large part of growing plants, there is much
more than horticulture involved in establishing a successful school garden. From custodial staff to principals, neighbors and city staff, there are many players involved in establishing a garden and even more in maintaining the project. Communications, hard work and extra effort are often involved for teachers and staff in a garden project. Learning from another country will give students an additional perspective on how school garden issues can be solved.

Although spring break is short, I believe we can create a meaningful international experience in 7-9 days that can make a significant impact on students. We will be communicating with partner schools here and in England by using our class blog: successfulschoolgardens.blogspot.com. After the Spring Break trip, students individually or in small groups will work with schools and community gardens in the Twin Cities to strengthen their gardens. The students will develop recommendations and findings on community and school gardens that will be shared by in-class presentations and online.

Hort 4000 Successful School Gardens Class Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Details and Specifics</th>
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</thead>
<tbody>
<tr>
<td>January 27, 2014</td>
<td>Introduction, class syllabus, expectations, projects, travel information; Twin Cities Partner Schools; 10 Challenges. Needs assessment of partner schools.</td>
<td>What can CFANS students contribute to schools to encourage gardens? Discuss logistics/partner school assignments based on student’s major, location/transportation/schedule. Matrix on board for student groups to partner schools.</td>
</tr>
<tr>
<td>February 3, 2014</td>
<td>IPFANS; Travel Information Start microgreens; finalize partner school assignments; sign up for issue and teaching presentations</td>
<td>Apply for background checks, ask for goals and objectives from partner schools. Determine a 2-3 hr min. time for school visits: March 25-May 2.</td>
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<tr>
<td>February 10</td>
<td>Develop preteaching training on microgreens; MN apples. Learning what you will teach. Harvest microgreens; Develop resources for teaching schools</td>
<td>3 Lesson Plans for Planting, Growing, and Harvest. Tie in with other curriculum and grad standards; literature and books; take home recipes for families and making microgreens at home</td>
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<tr>
<td>17</td>
<td>Garden Issue Presentations</td>
<td>Garden Issue Presentations</td>
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<tr>
<td>24</td>
<td>Skype with RHS School Gardens Leader for London</td>
<td>Set goals and objectives for partner schools;</td>
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<tr>
<td>March 3</td>
<td>Teaching in London schools</td>
<td>Practice for London schools and teaching in Twin Cities schools</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Notes</td>
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<tr>
<td>March 10</td>
<td>Trip Preparation</td>
<td>Finalize teaching for London schools</td>
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<tr>
<td>March 14-23</td>
<td>London School Gardens</td>
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<tr>
<td>March 24</td>
<td>Synthesis of Britain School Gardens: What did we Learn?</td>
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<tr>
<td>April 7</td>
<td>Part 1 Teaching Presentations</td>
<td>Part 1 Teaching Presentations</td>
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<tr>
<td>April 14</td>
<td>Final Project Work with Partner Schools</td>
<td></td>
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<tr>
<td>April 21</td>
<td>Work with Partner Schools</td>
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<tr>
<td>April 28</td>
<td>Work with Partner Schools</td>
<td></td>
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<tr>
<td>May 5</td>
<td>Final Class Presentations, Part 2</td>
<td>Teaching Presentations POST experiential work</td>
</tr>
<tr>
<td>May 12</td>
<td>Final Class Presentations, Part 2</td>
<td>Teaching Presentation POST experiential work</td>
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</tbody>
</table>

**Required and Recommended Website Resources:**

**Minnesota Resources:**


Local Resources in Minnesota: [http://www.extension.umn.edu/farm-to-school/school-gardens/local-resources.html](http://www.extension.umn.edu/farm-to-school/school-gardens/local-resources.html).

**National Resources:**


**Books:**

American Community Gardening Association. 2004-05. Community Greening: 25 Years of Community Gardening. ACGA.


**Suggested Topics for Teaching presentations:**


Gardening in small spaces that a partner school has

Improving school garden soil

How to set up and maintain a Gro Light in the classroom

Microgreen curriculum for K and 1st grade; middle school; high school; 3 lessons tying in with MN grad standards and other subjects; take home recipes and how to grow your own at home.

**Needs Assessment of Partner Schools**

Develop a list of topics that you will give to schools to select from. What do they what to learn?

Microgreens/Compost/What do roots do? What is soil? Photosynthesis/How do plants grow?

Develop 1-2 sentence sell or description of these topics for school tears and kids to select from.

Then develop an 8 week lesson plan for teaching. Reference: Julie Grossman’s work at NC State.

**Assignments, Papers and Assessments:**

<table>
<thead>
<tr>
<th>Topic</th>
<th>% of course grade</th>
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<tbody>
<tr>
<td>Experiential Component, advancing school gardens, working with Twin Cities schools:</td>
<td>30% of course grade</td>
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</table>

1. Define your teaching topic and set goals and objectives for the project. The overall goal of this part of the class is to link students to plants and the school’s garden. Develop a
lesson plan, with materials you will use in the classroom and leave with the teachers. Ideally it’s not a 1-time class, but a series of 2-3, or more. The content should be science based and an appropriate age learning experience for the students you are teaching. Determine how you will measure your teaching and the student’s learning and if the project successfully advanced gardening or garden use or horticulture at the school. This may mean developing evaluation questions. Pre London, you will turn in Part 1, your communication and orientation steps with partner schools, lesson plans with references and resources.

2. Teach at your Twin Cities partner school. Use the school garden or make a garden project, if possible for at least one of the classes. Have your teaching evaluated by the class teacher and Mary, or use evaluation questions that you can measure.

3. Blog or use other means to teach or correspond with the London and Twin Cities schools on what you taught or a related topic. Pen pals, emails, etc, food diary for lunch, 5 a day, apples and wild rice, tomato seedlings, microgreens, costing out landscapes, etc. apples in England and apples in MN, what’s in the store? Honeycrisp apple facts, tasting, etc.

4. Ideally, you will meet with Twin Cities students at least 3 times throughout the semester. Report in Hort 4000 on how this went, including recommendations in your final report.

5. If you want to continue this, Hort 1096, 3096 or 5096 Directed Studies can be taken for 1 credit, or approximately 36 hours this summer. Do the work this summer and sign up for Fall 2013 credit, to avoid tuition for summer. You can work with summer home base kids or other classes over the summer, depends on your school and topic.

Grading Experiential Project Items, see Checklist:

<table>
<thead>
<tr>
<th>Possible Points</th>
<th>Item</th>
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<tbody>
<tr>
<td>Part 1, Teaching Presentation:</td>
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<td>2 Arranged meetings with school:</td>
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<tr>
<td>5 Set measurable Goals and Objectives:</td>
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<tr>
<td>5 Developed teaching materials/lesson plan; resources and references:</td>
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<tr>
<td>Part 2, Final Presentations:</td>
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<td>7 Completed teaching:</td>
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<td>3 Evaluations, changes:</td>
<td></td>
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<tr>
<td>3 Recommendations for partner school:</td>
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</table>

*Presentation on a specific school garden issue* 20%

School Garden Issue
Using interviews, resources provided in the syllabus, and our London trip, students will prepare the analysis of one of the challenges facing our partner school gardens (garden maintenance, administrative issues, volunteer burnout, etc) and list of recommendations or opportunities for U of M students in relation to this particular challenge. Students will compare and contrast this particular issue as it relates to their experience with London school gardens and Twin Cities gardens. This project will involve one in-class presentations. Students will be assessed on the content, thoroughness of coverage, and variety of information they locate, how well they
communicate their findings, their recommendations for assisting partner schools, and how likely this issue can be solved or reduced with their proposed solutions. Ideally, the final paper or ppt or webpage can be linked to the class blog and shared with teachers at partner schools for advancing the school’s garden.

**Grading:**
1. Coverage of topic, thoroughness of description of issue; specifics in relation to partner school; recommendations and opportunities for advancing the school’s garden; 2-3 pages/5-10 ppt with descriptions 45%
2. References listing and completeness, include authors, no more than 30% .com references, edu and org are favored unless you can justify 20%
3. Format and ease of use by teachers: is the presentation self-explanatory and applicable to teachers? 20%
4. Grammar, spelling, neatness 10%
5. Signing up on time and not changing your subject 5%

*Travel Management and School Visit in London* 25%
Each student will be responsible for a portion of our trip in London (1 day), in planning how we will travel in country, assist with making arrangements with the site hosts, communication our needs and arrival time, along with recommendations for eating and other travel arrangements. This work will be done in conjunction with the U of M international travel providers we are using to plan the trip as well as the specific hosts in Britain, such as RHS and individual schools. We will also have a blog of our trip where students are expected to share their experiences during and immediately after the trip.

*In class participation and website work throughout the semester* 25%
Student weekly attendance, participation in discussions and engaging with the class will be an important part of this class. Students will also assist with inviting, introducing and acting as hosts for the guest speakers, where applicable and for visiting schools in the Twin Cities. Attendance and participation in the London trip will also be important for class participation as well as participation in the class blog and school garden information exchange sites online. Electronic devices are discouraged and will not be tolerated for non-class work. Using computers or handheld devices for non-class work (this includes preparation of a presentation) will result in a deduction of 2 pts per day. Computers can be used for small group work during non-lecture times.

**Class Participation Grading:**
5 Attendance; 5 In class Questions, Comments; 8 Blog Postings: 2pts per posting; 5 Not using electronic devices in class

Help with writing:

**University Policies:**
Student Conduct Code:

The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: Student Conduct Code. To review the Student Conduct Code, please see: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf.

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

Use of Personal Electronic Devices in the Classroom:

Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Scholastic Dishonesty:

You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: http://www1.umn.edu/oscai/integrity/student/index.html. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g.,
whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

**Makeup Work for Legitimate Absences:**

Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see:

[http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html](http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html).

**Appropriate Student Use of Class Notes and Course Materials:**

Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see:


**Grading and Transcripts:**

The University utilizes plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following:

- **A** 4.000 - Represents achievement that is outstanding relative to the level necessary to meet course requirements

- **A-** 3.667

- **B+** 3.333

- **B** 3.000 - Represents achievement that is significantly above the level necessary to meet course requirements

- **B-** 2.667

- **C+** 2.333

- **C** 2.000 - Represents achievement that meets the course requirements in every respect

- **C-** 1.667

- **D+** 1.333
D 1.000 - Represents achievement that is worthy of credit even though it fails to meet fully the course requirements

S Represents achievement that is satisfactory, which is equivalent to a C- or better.

For additional information, please refer to:  
http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html

Sexual Harassment

"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy:  
http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf

Equity, Diversity, Equal Opportunity, and Affirmative Action:

The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy:  
http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf

Disability Accommodations:

The University of Minnesota is committed to providing equitable access to learning opportunities for all students. Disability Services (DS) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DS at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website,  
https://diversity.umn.edu/disability/.
Mental Health and Stress Management:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: http://www.mentalhealth.umn.edu.

Academic Freedom and Responsibility: for courses that do not involve students in research

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".