

**Course Title:** Planting Seeds of Curiosity and Justice: School Gardens in Public Schools

**Syllabus overview:**

This course will combine classroom discussion and activities, independent reading and reflection, and service learning work in Somerville's nine school gardens. Outside of class time, students will be expected to spend an average of 1-2 hours on site at the schools (including travel time), and 3-4 hours reading and/or completing written or project based work.

**Service Learning:**

Groundwork Somerville supports all nine school gardens in Somerville. During the Fall semester, students will work in pairs or trios to support one school each as they complete their service learning assignments. Students will also observe and assist in hands-on garden lesson instruction, and develop an independent project on a topic relevant to the school they are supporting. Through their service, students will learn about basic garden care as well as various approaches to using a garden as a learning tool. Field experiences will be scheduled at a variety of times, and across several days of the week to accommodate student class schedules.

**Week 1: Introductions, History and Context**

School gardens are at the intersection of public schools, environmental education, urban agriculture, and school food. We'll dive into a brief history of these elements to situate ourselves in this field of study. We will also spend time getting to know one another, reviewing course objectives, and diving into the big questions this course will explore.

**Key Questions:**

Why school gardens? What is place-based learning? How do the fields of outdoor, environmental, and garden education overlap, and how might they play a role in schools? Are food and nature education justice issues?

What is the history of school garden education? How does it fit in the wider context of environmental education, urban agriculture, and public schools? How does it fit in the context and history of agriculture and public schooling in Somerville specifically?

**Activities:**

Sensory herb introductions; Place based identity activity; Visual presentation of school garden and other outdoor learning spaces; Human timeline activity; Group discussion; Syllabus review and introduction to fieldwork

**Readings:**

- "Sir Ken Robinson's TED Talk: "How to Escape Education's Death Valley"
- "History of Urban Agriculture in Somerville"
- "The Failure of Environmental Education (and How We Can Fix It)"

**Assignments:**

Written:

- Short reflection: what do you hope to gain from this course? What questions do you hope to answer? What skills do you hope to practice?

Fieldwork:

- Visit one school garden on your own (options include West Somerville Neighborhood

- School, walking distance from Tufts campus). Walk around the space and observe.
- Written reflection: What did you notice about the school garden design and layout? What questions do you have about the space and how the school might use the space?

### **Week 2: Introduction to the School Garden / Gardening in a schoolyard 101 Part 1**

Gardens are ecological systems, and the basics of good gardening are the same across a wide variety of school settings. At the same time, unique conditions require creative solutions to classic garden questions. We will visit a school garden and talk about the basics of ecological design and healthy garden ecosystems.

#### **Key Questions:**

What are the key elements of good gardening? What do plants need to grow and thrive? What basic skills do gardeners use? How do these skills apply to a school garden setting?

#### **Activities:**

Circle reflection/report out

Gardening in a schoolyard 101 Workshop, Part 1 (Intro to garden basics, permaculture and the specifics of gardening in a school)

- Workshop will take place at West Somerville School Garden

#### **Readings:**

- Toby Hemenway, *Gaya's Garden*, Part 1
- Bucklin-Sporer and Pringle, *How to Grow a School Garden*, Chapter 3
- [Ripe for Change](#) Chapter 1: The Origins and Benefits of School Gardens
- Berhan, Kristen. "The Garden: A Master Teacher"

#### **Assignments**

Fieldwork:

- Site assignments made; onsite training by location for weekly garden support
- Written reflection: What are the strengths and challenges of your school garden space? What initial questions do you have about this school garden space?

### **Week 3: Benefits of School Gardens, Body**

This week explores the benefits of school gardens and outdoor education programming on physical health and wellness for students.

#### **Key Questions:**

How do school gardens help support the physical well-being of our students? What evidence shows that these spaces affect healthy food consumption, physical activity? What evidence is still needed?

#### **Activities:**

Circle reflection/report back from readings;

Four corner debate; Wagonwheel discussion on food and physical activity

Sensory tasting and group discussion: "You are what you eat"

#### **Readings:**

- In *Baby's 'First Bite,' A Chance To Shape A Child's Taste*
- "The Impact of Cooking Classes on Food-Related Preferences, Attitudes, and Behaviors"

of School-Aged Children: A Systematic Review of the Evidence, 2003–2014."

- "School gardens grow kids' physical activity levels"
- Sarah A. Moore, et al. "Designing Nature for Learning: School Gardens for Youth and Child Education."

**Assignments:**

- Fieldwork: Weekly garden care by site

**Week 4: Benefits of School Gardens, Mind**

This week explores the benefits of school gardens and outdoor education programming on learning and academic achievement.

**Key Questions:**

How can school gardens support academic goals? What are the key ways schools measure academic achievement, and how can gardens step into this role? Are there opportunities to bring hands-on approaches to the way we evaluate learning?

**Activities:**

Circle reflection/report back from readings; Group discussion  
Debrief fieldwork: what did you notice? What questions do you have?  
Digging into standards activity and debate

**Readings:**

- Coyle, Kevin. "Six Key Reasons the New Next Generation Science Standards are Great News for Environmental Education"
- "Healthy Eaters, Strong Minds: What School Gardens Teach Kids"
- Blair, Dorothy. "The Child in the Garden: An Evaluative Review of the Benefits of School Gardening." <http://www.mariaarambula.com/wp-content/uploads/2014/01/childrens-gardens.pdf>

**Assignments:**

Fieldwork:

- Weekly garden care by site

**Week 5: Benefits of School Gardens, Spirit**

This week explores the benefits of school gardens and outdoor education programming on social emotional and mental health with a focus on mindfulness as well as questions about whether it is possible, or useful to teach character traits.

**Key Questions**

How can school gardens support the spirit of our students, including their social emotional health and skill building? How does social emotional skill building impact other student achievement in school? Can we teach character traits? If so, how do schools decide which character traits to value?

**Activities:**

Seed meditation  
Circle reflection/report back on readings  
Small group discussion and presentation to class

**Readings:**

- Last Child in the Woods , "The Spiritual Necessity of Nature for the Young", p285
- Tough, Paul. "What if the Secret to Success is Failure?"
- Ecological Literacy: Preface and Foreword; Okanagan Education, 80; Speaking Nature's Language, 18

**Assignments:**

Fieldwork:

- Weekly garden care by site
- Observe School Garden Lesson

Written reflection:

- What succeeded and what fell short of the goals during garden lesson? What do you think makes a successful school garden lesson?

**Week 6: How to Teach in an Outdoor Garden Space, Workshop Part 1**

Teaching in gardens relies on the foundations of teaching in a classroom, but incorporates key strategies to make the most of the learning opportunities outdoors.

**Key Questions:**

What makes an engaging lesson? How can gardens excite the curiosity of students of all ages? What key topics can we cover in a garden setting? What basic strategies can we incorporate in our teaching style that makes the garden come alive?

**Activities:**

Circle reflection/report out  
Garden Teaching 101 Workshop #1  
Introduction to final project and possible focus areas

**Readings:**

- The Growing Classroom, Chapter 1
- Seed to Taste Program curriculum review
- Ecological Literacy

**Assignments:**

Fieldwork:

- Weekly garden care by site
- Attend a school garden lesson as an assistant teacher

**Week 7: How to Teach in an outdoor garden space, Workshop, Part 2**

**Key Questions:**

How can we incorporate cooperative learning and participation strategies into a garden classroom? How can we manage student behavior in the wilderness of the "great outdoors"?

**Activities:**

Circle reflection/report out  
Garden Teaching 101 Workshop, Part 2

Selection of final project teams, initial brainstorm session

**Reading**

- Ecological Literacy, Helping Children Fall In Love with the Earth, 111
- French Fries and The Food System

**Assignments**

Fieldwork:

- Weekly garden care by site
- Attend a second school garden lesson as an assistant teacher

Written:

- Group proposal of final project idea

**Week 8: School Gardens and Community Building**

School gardens provide opportunity for community building at multiple scales, between one teacher and one student, between a whole class, between parents and community members and the school. We will look at multiple definitions of community, and how gardens can support a deepening sense of community at multiple scales.

**Key Questions:**

How can school gardens help to build community? What are the challenges to building community in schools? Can school gardens help students, teachers, and families bridge divides of culture, personality, and interests? How can gardens act as an entrance point for families and community members to invest in their schools? How does system change take hold in established institutions?

**Activities:**

Circle reflection/report out  
Case study analysis; group discussion  
Small group meetings: final project idea review

**Readings:**

- Ron Finley Ted Talk:  
[https://www.youtube.com/watch?v=EzZzZ\\_qpZ4w&list=PLR6fnyloefidHwvUPGCKd0rY9zyFIX4Rr](https://www.youtube.com/watch?v=EzZzZ_qpZ4w&list=PLR6fnyloefidHwvUPGCKd0rY9zyFIX4Rr)
- Ecological Literacy: Revolution, 135, Leadership, 149, Dancing with Systems, 193
- Ripe for Change: Barriers to Integrating School Gardens, p 39.

**Assignments:**

Fieldwork:

- Weekly garden care by site

Written reflection:

- When have you been involved in an activity or project that effectively build a sense of community? What key elements led to its success? What barriers were overcome?

### **Week 9: School food and cafeterias**

Changing school lunch is often painted as the "holy grail" of school food work. It is also often so challenging that many programs never even attempt to impact the food in their cafeterias. Why is this so? What examples of success can be seen in Somerville and across the country?

#### **Key Questions:**

How do school gardens connect with school food? What are the challenges of providing healthy foods to our students? How are some schools overcoming these challenges? What are the opportunities for learning and community building in the cafeteria?

#### **Activities:**

Circle reflection/report out  
Case study review and round robin discussion  
"Quick cook" and taste test: "if they cook it, they will eat it"

#### **Readings:**

- Gottlieb and Joshi , "School Food Revolution", 210
- "Feet to the Fire", Kids Rethink New Orleans Schools

#### **Assignments:**

Fieldwork:

- Weekly garden care by site

Project:

- Ongoing group work to complete initial project planning stages

### **Week 10: Equity and School Gardens**

Public schools are faced with the challenge and privilege of educating every student who walks through their doors. School gardens can provide entrance points for many learners to engage in a variety of ways.

#### **Key Questions:**

How do gardens support a wide variety of learners (English Language learners, Special Education participants, and others)? How do these environments promote acceptance of different learning styles and multiple intelligences? How

#### **Activities:**

Circle reflection/report out  
Slide show presentation/group discussion  
Multiple learning modalities round robin  
Learning style quiz and group reflection  
Group project time

#### **Reading:**

- Westervelt, Miriam. "Schoolyard Inquiry with English Language Learners"
- Growing Health: Food growing for health and wellbeing

#### **Assignments:**

Fieldwork:

- Weekly garden care by site

Written Reflection:

- How do you see define “food justice”, “educational justice” and “environmental justice”? Where in our community do you see examples of a just society? What example of injustice are most concerning to you?

Project:

- Ongoing group work to move forward with final project

### **Week 11: Equity and School Gardens, Continued: Food Justice, Environmental Justice**

Public schools provide a space for communities to demonstrate shared values around what we believe every child deserves.

#### **Key Questions:**

Is good food a human right? Is access to nature a human right? What is the responsibility of schools to provide healthy food to our students? What is the responsibility of schools to help teach them to want healthy food?

#### **Activities:**

Circle reflection/report out  
Group discussion  
Story telling activity: rights and how we come by them  
Group project time

#### **Readings:**

- Food Justice, preface and introduction
- Special Report: The right to food is a basic human right
- Last Child in the Woods: To Be Amazed

#### **Assignments**

Fieldwork:

- Weekly garden care by site
- Written Reflection: How has your garden changed over the last 8 weeks? What are you noticing about the ecological systems? What have you noticed about the school dynamics?

Project: Ongoing group work to move forward with project

### **Week 12: Gardening 101 in a schoolyard, Part 2**

The dive into garden ecosystems continues. We will consider the complex dynamics of soil, beneficial and harmful animals, and building plant guilds.

#### **Key Questions:**

How do gardens change with the change of the seasons? What can be done to prepare the garden for winter? How do we build soil while our plants are hibernating?

#### **Activities:**

Gardening 101, Part 2 (Soil dynamics, seed saving, putting the garden to bed)  
Group discussion: similarities and differences across school gardens, the strength of “the school garden network effect”

#### **Reading:**

- Toby Hemenway, *Gaya's Garden*, Part 2
- Elliot Coleman, *Four Season Harvest*, Chapter 3: The Living Soil

**Assignments:**

Fieldwork:

- Weekly garden care by site

**Week 13: Project Presentations and class celebration**

**Key Questions:**

What have we learned? What can we teach each other?

**Activities:**

Project presentations

Class potluck and celebration

**Assignments**

Project:

Final paper due

Final project presentation

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Moore, Sarah A., et al. "Designing Nature for Learning: School Gardens for Youth and Child Education." *Children, Youth and Environments*, vol. 22, no. 1, 2012, pp. 250–259. JSTOR, [www.jstor.org/stable/10.7721/chilyoutenvi.22.1.0250](http://www.jstor.org/stable/10.7721/chilyoutenvi.22.1.0250).

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