# Bachelor of Science in Sustainable Community Development

# Program Handbook

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UMassAmherst LA&RP Landscape Architecture & Regional Planning

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# Introduction to the Major in Sustainable Community Development

**Program Director:**
**Peter Dunn**
ptdunn@umass.edu

The Bachelor of Science in **Sustainable Community Development (SCD)** offers opportunities to study many aspects of the living environment from a design and planning point of view. This degree provides content across major areas of community-level sustainability, including ecology, economy, policy, equity, engagement, culture, and history, as well as field-specific knowledge in urban design and regional planning. Formerly titled Environmental Design, this program was established in 1966 as a pre-professional undergraduate degree. The name change in the fall of 2014 and the curriculum update in the fall of 2017 reflect the evolving nature of our field, dealing with social and natural environments.

Graduates from the BS-SCD program will be prepared to pursue a profession or higher degree in the various fields related to urban design, regional planning, and community development and to make informed and effective development decisions that can have a lasting impact on the built and natural environments. The curriculum broadly exposes students to the theories and techniques of planning and design so they can understand how human and ecological activity shape a landscape and what is involved in the sustainable development of neighborhoods, cities, and regions. It provides the academic background needed for dealing with a wide range of cultural, social, political, economic and ecological aspects in envisioning and creating sustainable communities.

Core classes prepare students to understand the dynamics of neighborhoods, cities, and landscapes, and to engage communities in envisioning a more socially and environmentally balanced world. Through five concentration options, the BS-SCD program provides historical, theoretical, and professional perspectives in the liberal arts and science fields. Each concentration emphasizes environmental or social issues at a different a scale, from construction details and buildings to urban landscapes and regions. The SCD areas of concentration are:

- **Built Environment** Provides technical language skills for understanding environmental design at the site and building scale, bridging building technology, architecture, and landscape. Aligned with architecture and design fields.
- **City and Society** Builds a broad social science understanding of how neighborhoods, towns, cities, and regions work, and how they can be influenced to better serve a range of social and environmental goals. Aligned with the field of urban planning.
- **Climate Change and Green Infrastructure** Focuses on the ways that cities and buildings can reduce greenhouse gasses, improve livability and resilience, and enhance ecology through design and planning interventions.
- **Landscape Design and Build** Provides theoretical and practical knowledge to design and build landscapes in a sustainable way. Designed for students entering the program from the two-year Associate Degree in Landscape Contracting.
- **Independently Designed Concentration** In consultation with Program Director, it is possible to combine LARP courses from the various standard concentrations to allow a more interdisciplinary focus.

Students declare a concentration when they enter the program, but this may be changed later in consultation with an advisor.

This Program Handbook provides details on course requirements, academic policies, and other useful information for current and prospective Sustainable Community Development students.

# Degree Requirements

In order to complete the Sustainable Community Development major, students must take 14 courses. Students must also meet the University's General Education and credit requirements to earn the Bachelor of Science.

| | | |
|---|---|---|
| 8 Core Courses | 28 – 29 credits | Required of all Sustainable Community Development majors |
| 6 Concentration Courses | 18 – 24 credits | Built Environment, City & Society, and Climate Change & Green Infrastructure Concentrations: 4 required courses and 2 concentration electives<br>Landscape Design Build Concentration: 6 required courses<br>Independently Design Concentration: 6 courses selected in coordination with the Program Director |
| 14 Courses total | 46 – 53 credits | |

### Notes

- All courses required for the major must be completed with a grade of C- or better.
- These curriculum requirements became effective in the fall of 2017. Students who enrolled prior to that date should consult with the Program Director.

# Sustainable Community Development Core Courses

| COURSE | GEN ED | CREDITS | TERM | TIME |
|---|---|---|---|---|
| **SustComm 110** Transforming Your World: Intro to Comm. Engmt. | SB, DU | 4 | Fall | TuTh 2:30 – 3:45pm |
| **SustComm 140** Awareness of the Visual Environment | AT | 4 | Fall | TuTh 1 – 2:15pm |
| **SustComm 232** History of Sustainable Community Development | HS, DG | 4 | Spring | TuTh 10 – 11:15am |
| **SustComm 314** Writing in Community Dev. & Landscape Arch. | JYW | 3 | Spring | TuTh 11:30am – 12:45pm or 1 – 2:15pm |
| **SustComm 394RI** Research Issues in Community Dev. | IE | 3 | Fall | TuTh 10 – 11:15am |
| **SustComm 543** Landscape Architecture History I* | AT | 4 | Fall | MoWe 5:30 – 6:45pm |
| **SustComm 544** Landscape Architecture History II* | | 3 | Spring | TuTh 5:30 – 6:45pm |
| **SustComm 574** City Planning | | 3 | Fall | TuTh 8:30 – 9:45am |
| **LandArch 547 + 547L** Landscape Pattern & Process + Lab | | 3 + 1 | Fall | TuTh 11:30am – 12:45pm (lecture) +<br>Tu 8:00 – 11:15am, Tu 1 – 3:45 pm,<br>Th 8:00 – 11:15am, or Th 1 – 3:45 pm (lab) |

*Only one of the two Landscape Architecture History courses (SustComm 543 or SustComm 544) is required.

### Gen Eds

Junior Year Writing (JYW) and Integrative Experience (IE) are Gen Ed requirements that are taken within the student's major. In addition, students may apply two courses from their major department towards Gen Ed requirements: one diversity class (DU or DG) and one in any other Gen Ed category. All other Gen Ed requirements must be satisfied by courses outside of the major department. For more information about General Education requirements, go to umass.edu/gened.

### Course Sequencing

Students should plan to take SustComm 110 and SustComm 140 in their freshman or sophomore years. SustComm 394RI is restricted to juniors and seniors. SustComm 314 (Junior Year Writing) is typically taken junior year but may be taken by sophomores with instructor permission. Concentration classes can be taken at the same time as core classes. When concentrations have 100- and 200-level courses, these should be taken earlier in the program. 500-level classes are typically appropriate for juniors and seniors, and sometimes sophomores.

Transfer students, students entering from the AS in Landscape Contracting, and students completing the major requirements in less than three years may have a different course sequence; consult the Program Director to plan a course schedule.

# Concentration in Built Environment (BE)

The Concentration in Built Environment (BE) allows the study of the living environment from a variety of perspectives, ranging from building techniques and architecture to the larger context of social and ecological landscapes. Architecture is a social art, thus, this concentration is as much about design theory and practice as it is about people and how their needs and ambitions can be expressed in spaces and structures. You will study the sustainability, functionality, and beauty inherent in a well-designed building as well as the physical fabric of the city. This field involves knowledge of the following areas:

- **Aesthetics**: Exploring the nature of space and building materials, looking at basic design theory, the design of simple structures or landscapes, the relationships between buildings and their context, and the study of urban form.
- **Human Experience**: Relating spatial experience to the needs of human beings, the cultural and psychological aspects of space, and human relationships with the natural and built environments.
- **History of Architecture**: Introducing the history of building, its relationship to the aspirations and practical needs of various societies, and an overview of the evolution of architectural styles and urban form.
- **Design Technology and Technique**: Designing environmentally sound spaces and structures that meet functional standards and aesthetic goals, introducing basic construction techniques of structures and landscape elements, understanding the physical and aesthetic properties of materials used, and gaining familiarity with building codes, zoning regulations, graphic communications, and computer skills.

Classes for the BE concentration emphasize studio art, architectural history, building technology, and human use of space. This concentration develops technical skills for understanding design and planning at the building scale within the framework of creating sustainable communities.

## Career Paths

The Built Environment concentration prepares students for careers in a wide range of design and construction fields that deal with the social aspects of the built environment with an emphasis on sustainability. They will also be prepared to pursue a graduate-level professional design degree in building technology, architecture, or landscape.

The BE concentration works well for students interested in the accelerated 2-year Master of Landscape Architecture (the 4+2 MLA program), with the addition of 500-level LandArch studios in the senior year.

# BE Concentration Requirements

Take four concentration required courses and two electives from the approved courses list.

## Notes

- No more than two 100-level courses can count toward concentration requirements.
- All courses must be completed with a grade of C- or better.
- Course offerings and times change from year to year. Check Spire for current information.

## Required Courses

Take four of the following courses.

| COURSE NO | NAME | CREDITS | TERM | TYPICAL TIME |
|---|---|---|---|---|
| SustComm 150 | Introduction to Environmental Design | 3 | Spring | MoWe 9:05 – 11:00am |
| SustComm 205 | Dynamics of Human Habitation (Gen Ed: I) | 4 | Spring | TuTh 11:30am – 12:45pm |
| SustComm 281 | Visual Communication: Design Principles and Digital Skills | 3 | Varies | Varies |
| LandArch 587 | People and the Environment | 3 | Fall | TuTh 11:30am – 12:45pm |
| LandArch 592M | Material Experiments in Landscape Architecture | 3 | Spring | MoWe 9:05 – 10:20am |

LandArch 191 (Studio Graphics I, offered Fall term) and LandArch 583 (Digital Tech for Design Representation, offered Spring term) can also count as concentration required courses. However, availability of these courses to SCD students is limited. Check with instructor.

## Electives

Take two concentration electives. The following classes are approved electives; students interested in counting a relevant course (3 or 4 credits) not listed may request a substitution from the Program Director. Many classes in Architecture (ARCH) and Building and Construction Technology (BCT) can count towards this concentration. Some classes may have prerequisites or other restrictions. Check with instructor.

ARCH 211 The City
ARCH 597K Design for Climate Change
ARCH Design Studios
ART 104 Basic Studio/Drawing
ART-HIST 307 Romanesque & Gothic Art
ART-HIST 324 Modern Art, 1880-present
ART-HIST 342 19th C. Arch: Reform, History, Technology
ART-HIST 343 Twentieth Century Architecture
BCT 204 Construction Materials & Methods
BCT 313 Light-Frame Structure Technology
BCT 525 Solar Energy System and Building Design
BCT 530 Mechanics of Building Materials for Construction
BCT 550 Construction Project Management
BCT 414 Sustainable Building & LEED Certification
BCT 511 Clean Energy Corps
CE 310 Transportation
GEOGRAPH 102 Div, Glob, Sust: Intro to Human Geography
GEOGRAPH 370 Urban Geography
LANDARCH 294A Construction Materials
LANDARCH 201 Studio I
LANDARCH 202 Studio II
LANDARCH 254 Business Concepts of Landscape Contracting
LANDARCH 592M Material Experiments in LandArch
MATH 127 Calculus - Life + Social Sciences II
MATH 128 Calculus - Life + Social Sciences II
MATH 132 Calculus II
NRC 185 Sust. Living: Solutions for the 21st Century
PHYSICS 100 Conceptual Physics
PSYCH 360 Social Psychology
REGIONPL 591I Sustaining Green Infrastructure Planning & Design
RES-ECON 262 Environmental Econ
SOCIOL 360 Urban Sociology
SUSTCOMM 352 Planning Tools and Techniques
SUSTCOMM 591G Urban Greening Theory and Practice

# Concentration in City & Society (CS)

The Concentration in City and Society (CS), formerly called Urban Studies, is concerned with the quality of life in neighborhoods, towns, cities, and metropolitan areas. Closely aligned with urban planning, the CS concentration allows students to explore creative and systematic approaches to environmental, economic, and social issues affecting communities and larger regions. Sustainable communities may be created through careful economic development, control of sprawl, heritage conservation, expanded recreational and cultural opportunities, green infrastructure, improved housing, preserved open space, political reform, and environmental justice. CS concentration courses focus on social equity, human ecology, cultural vitality, economics, politics, policy, land use, and other issues related to city planning. You will build a broad social science understanding of how cities work and how they can be influenced to better serve a broad range of social and environmental goals. Studies in the CS concentration are concerned with:

- **Human Settlement Dynamics**: The forces that go into developing human agglomerations, how these environments change, how different groups experience these environments, and how designers and planners work within the context within which communities develop physically, but also socially, politically, and economically.
- **Regulatory Processes**: The legal and technical dimensions related to city planning and strategies, the implications of urban policies and practices, and how living conditions and livability can be improved through land-use and policy decisions.
- **Global Issues**: The challenges and opportunities found in villages, towns, cities, and mega-cities in the global context, including inequalities in the distribution of goods and services that are required for a quality life food, such as water, shelter, safety, commerce, the question of leadership and what it means to be an active and engaged citizen.
- **Planning Tools and Techniques**: Theories and analytic methods useful in the practice of public sector planning at the local level, including from fostering economic development and creating local employment to managing improvements efficiently.

## Career Paths

Students with this concentration are prepared to work in government agencies, consulting firms, or non-profit organizations working in any of the many domains related planning better communities. They also go on for a master's degree in planning or other related fields, such as public policy and transportation planning.

This concentration is well suited for students pursing the accelerated Master's in Regional Planning (the 4+1 MRP program).

# CS Concentration Requirements

Take four concentration required courses and two electives from the approved courses list.

## Notes

- No more than two 100-level courses can count toward concentration requirements.
- All courses must be completed with a grade of C- or better.
- Course offerings and times change from year to year. Check Spire for current information.

## Required Courses

Take four of the following courses.

| COURSE NO | NAME | CREDITS | TERM | TYPICAL TIME |
|---|---|---|---|---|
| SustComm 125 | Global Cities and Global Issues | 4 | Spring | TuTh 1 – 2:15pm |
| SustComm 205 | Dynamics of Human Habitation (Gen Ed: I) | 4 | Spring | TuTh 11:30am – 12:45pm |
| SustComm 333 | Intro to Community Economic Development (Gen Ed: SB) | 4 | Spring | MoWe 12:45 – 2pm |
| SustComm 352 | Planning Tools and Techniques | 3 | Fall | MoWe 1:15 – 2:30pm |
| RegionPl 545 | Intro to Land Use | 3 | Spring | TuTh 10 – 11:15am |

Classes in the MRP core curriculum count as a concentration required course with the approval of the Program Director.

SustComm 125 is recommended for freshmen and sophomores.

## Electives

Take two concentration electives. The following classes are approved electives; students interested in counting a relevant course (3 or 4 credits) not listed may request a substitution from the Program Director. Some classes may have prerequisites or other restrictions. Check with instructor.

ANTHRO 100 Human Nature
ANTHRO 104 Culture, Society and People
ANTHRO 205 Power and Inequality in the US
ANTHRO 380 Grassroots Community Organizing
ARCH 211 The City
ART-HIST 343 Twentieth Century Architecture
CLASSICS 380 The Ancient City
ECO 605 Urban Forests: Structure, Functions, and Value
ECON 104 Intro to Macroecon
ECON 105 Intro Political Economy
ECON 308 Political Economy of Environment
GEOGRAPH 102 Div, Glob, and Sust: Intro to Human Geography
GEOGRAPH 352 Computer Mapping
GEOGRAPH 370 Urban Geography
GEOGRAPH 585 Introduction to GIS
GEOGRAPH 468 GIS and Spatial Analysis
HISTORY 385 Modern Boston
LANDARCH 587 People & the Environment
NRC 100 Environment & Society
NRC 185 Sustainable Living: Solutions for the 21st Century
NRC 290C Trees and Sustainability
NRC 585 Introduction to GIS
POLISCI 203 American Political Thought
PSYCH 360 Social Psychology
REGIONPL *Any class from the MRP program*
RES-ECON 102 Intro Resource Economics
RES-ECON 121 Hunger in Global Economy
RES-ECON 212 Intro Stats / Soc Sci
RES-ECON 262 Environmental Econ
RES-ECON 263 Natural Resource Economics
RES-ECON 472 Advanced Topics Envir. & Res Econ
SOCIOL 106 Race, Gender, Class, Ethnicity
SOCIOL 212 Elem Statistics
SOCIOL 213 Data Collect & Analysis
SOCIOL 271 The Global City
SOCIOL 334 International Crises and Disasters
SOCIOL 360 Urban Sociology
SPP 111 Policy in an Age of Precarity
SPP 181 Controversies in Public Policy
SPP 203 Economics for Public Policy
SPP 204 Statistical Models for Public Policy
SPP 280 Public Policy
SPP 312 Making a Difference: Policies & Strategies for Social Change
SRVCLRNG 293 Learn thru Community Engagement
STATS 111 Elementary Statistics
STATS 240 Intro to Statistics
SUSTCOMM 225 Race, Gender, and Sexuality & Equity
SUSTCOMM 533 Urban Greening Theory and Practice
WGSS 220 Gender, the Global Environment and Sustainability

# Concentration in Climate Change and Green Infrastructure (CCGI)

The Climate Change and Green Infrastructure Concentration (CCGI), formerly called Landscape Studies, is concerned with large-scale environmental planning and policy. This concentration focuses on the ways that cities and buildings can reduce greenhouse gasses, improve livability and resilience, and enhance ecology through building, infrastructure and planning interventions. You will learn how to enhance the environmental quality through the wise allocation of resources that mitigates, anticipates and accommodates pressures arising in rapidly changing environments and perform the delicate balancing act between development and conservation. To enter this field requires study in:

- **Ecological Systems**: Applied ecology and ecosystem principles, the role of the natural systems in urbanization, the impact of human activity from the global environment to specific environmentally sensitive areas, and theory and practices in resource economics and planning for greenway systems to improve ecosystems resilience and human well-being.
- **Social Systems**: Historical and contemporary needs and cultural attitudes that shape environments, the future of the urban form given our current context of rapid urban growth and increased environmental pressures, and the implications of these coming conditions for built form both now and in the future, and how planners and policymakers can provide environmental leadership to communities.
- **Climate-related Impacts**: The challenges of a rapidly changing climate and the frameworks and tools needed to address climate issues that impact people and their communities, confront climate threats, reduce vulnerability, and build resilience to extreme events.
- **Policy and legal tools**: Working with local, regional, state, and national governments to regulate land use, protect natural areas resources, expand sustainable practices, encourage socially responsible development, and transform transportation systems.

## Career Paths

Students concentrating in CCGI are prepared to begin careers with government, non-profit, and private organizations focused on biodiversity, ecology, resource and environmental policy, or sustainable landscape planning and management. They are also well placed to attend graduate school in a wide variety of climate, design, or policy programs.

This concentration works well for students pursuing the accelerated Master's in Regional Planning (the 4+1 MRP program).

# CCGI Concentration Requirements

Take four concentration required courses and two electives from the approved courses list.

## Notes

- No more than two 100-level courses can count toward concentration requirements.
- All courses must be completed with a grade of C- or better.
- Course offerings and times change from year to year. Check Spire for current information.

## Required Courses

Take four concentration required courses.

| COURSE NO | NAME | CREDITS | TERM | TYPICAL TIME |
|---|---|---|---|---|
| SustComm 285* | Climate Change and Resilient Cities | 3 | Spring | TuTh 11:30am – 12:45pm |
| SustComm 352 | Planning Tools and Techniques | 3 | Fall | MoWe 1:15 – 2:30pm |
| SustComm 533 | Urban Greening Theory & Practice | 3 | Fall | Tu 5:30 – 8:15pm |
| RegionPl 585* | Planning for Climate Change | 3 | Fall | TuTh 1 – 2:15pm |
| RegionPl 591 I | Sustaining Green Infrastructure Planning and Design | 3 | Spring | TuTh 2:30 – 3:45pm |

*Choose either SustComm 285 or RegionPl 585.

SustComm 543 Landscape Architecture History I can count as a concentration required course if the student takes SustComm 544 Landscape Architecture History II to satisfy the SCD core requirements.

Classes in the MRP core curriculum can count as concentration required courses with the approval of the Program Director.

## Electives

Take two concentration electives. The following classes are approved electives; students interested in counting a relevant course (3 or 4 credits) not listed may request a substitution from the Program Director. Some classes may have prerequisites or other restrictions. Check with instructor.

BCT 150 The Built Environment
BIOLOGY 287 Intro Ecology
BIOLOGY 421 Plant Ecology
ECO 605 Urban Forests: Structure, Functions, and Value
ECO 622 Conservation Biology
ENVIRSCI 214 Ecosystems, Biodiversity + Global Change
GEOGRAPH 110 Global Environmental Change
GEOGRAPH 352 Computer Mapping
GEOGRAPH 354 Climatology
GEOGRAPH 370 Urban Geography
GEOGRAPH 585 Introduction to GIS
GEOGRAPH 468 GIS and Spatial Analysis
GEOGRAPH 492 NP National Parks and Protected Areas
GEOGRAPH 497R Rethinking US Environmental Policy
GEOLOGY 231 Geological Field Methods
HISTORY 397GEH Global Environmental History
LANDARCH 494LI Landscape Planning & The Cultural Landscape
LANDARCH 663 Cultural Landscapes: Document., Values & Policy
NRC 100 Environment and Society
NRC 185 Sustainable Living: Solutions for 21st Century
NRC 225 Forests and People
NRC 261 Wildlife Conservation
NRC 270 Forest Ecology & Conservation
NRC 290C Trees and Sustainability
NRC 390E Evolution and Conservation
NRC 409 Natural Resource Policy & Admin
NRC 494EI Environmental Decision Making
NRC 564 Wildlife Habitat Management
NRC 577 Ecosystem Modeling & Simulation
NRC 578 Watershed Science and Management
NRC 585 Intro to GIS
NRC 590RE Restoration Ecology
RES-ECON 102 Intro Resource Econ
SPP 111 Policy in an Age of Precarity
SPP 181 Controversies in Public Policy
SPP 309 Natural Resource Policy & Administration
STOCKSCH 120 Organic Farming and Gardening
SUSTCOMM 125 Global Cities and Global Issues
SUSTCOMM 583 Digital Tech for Design Representation

# Concentration in Landscape Design & Build (LDB)

The Concentration in Landscape Design and Build (LDB), formerly called Horticulture Studies, is designed especially for students entering from the 2-year Associates Degrees in Landscape Contracting, or related fields. It is concerned with the small-scale details of building and maintaining sustainable landscapes. It allows environmentally-aware students to explore different aspects of the rapidly expanding 'green' industries and learn how to apply sound scientific, construction, and management principles in adding beauty to a sustainable environment. This concentration brings together scientific knowledge of plants, soils, and ecology with the theoretical and practical aspects of landscape design, construction technology and business management. This field requires a theoretical and practical knowledge in these areas:

- **Life of Soils and Plants**: Environmental factors that encourage or inhibit plant growth, requirements for sound plant growth, ecological principles that support organisms (both plants and animals), types of soil and methods of soil modification to maximize plant health, plant communities and their native habitats, and current research on concepts of sustainability.
- **Plants-Human Relationships**: Plants for food and utility, horticulture and the cultivation of plants, the principles of designing the layouts of small properties, and the benefits of people-plant relationships.
- **Landscape Construction**: Techniques in the construction and maintenance of landscapes and control of storm water run-off and erosion, economics between various construction and management systems, and reading and creating construction drawings.
- **Business Management**: Specific fields within the 'green industry', knowledge of the principles of estimating and accounting for small businesses, and awareness of legal responsibilities, insurances and other business responsibilities.

## Career Paths

The LDB concentration serves students who want to design and build landscapes in a sustainable way. This major provides an excellent background for those who want to go on for a Master in Landscape Architecture or go to work for design and contracting firms.

This concentration also works well for students interested in the accelerated 2-year Master of Landscape Architecture (the 4+2 MLA) with the addition of 500-level LandArch studios in the senior year.

# LDB Concentration Requirements

Take six concentration required courses.

## Notes

- All courses must be completed with a grade of C- or better.
- Course offerings and times change from year to year. Check Spire for current information.

## Required Courses

| COURSE NO | NAME | CREDITS | TERM | TYPICAL TIME |
|---|---|---|---|---|
| LandCont 112 | Introduction to Landscape Design | 4 | Fall | MoWeFr 1:25 – 5:15pm |
| LandArch 254 | Business Concepts of Landscape Contracting | 3 | Spring | TuTh 1:00 – 2:15pm |
| LandArch 302 | Residential Design (Studio VI) | 3 | Fall | MoWeFr 1:25 – 5:15pm |
| SustComm 335 | Plants in the Landscape | 4 | Fall | MoWe 9:05 – 9:55am + lab |
| LandArch294A | Construction Materials | 3 | Spring | TuTh 2:30 – 3:45pm |
| BCT 550 | Construction Project Management | 3 | Spring | MoWe 1 – 2:15pm |

- LandCont 112 may be substituted with LandArch 201 / LandArch 297A Fundamentals of Design (Studio I).
- LandArch 254 was previously numbered LandArch 297M.
- LandArch 302 was previously numbered LandArch 397B.
- BCT 550 is also offered in Fall term with restricted enrollment. Check with instructor.

## Sample two-year plan for students entering the Landscape Design & Build concentration after completing the AS in Landscape Contracting

This schedule assumes that students have completed SustComm 335 Plants in Landscape, LandCont 112 Intro to Landscape Design (or equivalent), LandArch 254 Business Concepts of Landscape Contracting, and LandArch 294A Construction Materials while earning their AS. Additional courses may be needed to satisfy Gen Ed requirements and complete the 120 credits needed for the BS.

### Junior Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 110 Intro to Community Engagement | 4 |
| SustComm 140 Awareness of the Visual Environment | 4 |
| LandArch 302 Residential Design (Studio VI) | 3 |
| General Education Course | 4 |
| Total credits | 15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 232 History of SCD | 4 |
| SustComm 314 Writing in Community Development | 3 |
| General Education Course | 4 |
| General Education Course | 4 |
| Total credits | 15 |

### Senior Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 574 City Planning | 3 |
| LandArch 547/547L Landscape Pattern & Process + Lab | 4 |
| SustComm 394RI Research Issues | 3 |
| General Education Course | 4 |
| Total credits | 14 |

| SPRING SEMESTER | CREDITS |
|---|---|
| BCT 550 Construction Project Management | 3 |
| SustComm 544 Landscape Architecture History II | 4 |
| General Education Course | 4 |
| General Education Course | 4 |
| Total credits | 15 |

# Independently Designed Concentration (ID)

If an SCD Major has potential professional interests at the intersection of the standard concentrations, that student may, in consultation with the Program Director, combine LARP courses from the various standard concentrations to allow more interdisciplinary focus. Students in this concentration must work closely with the Program Director.

Students with an independently designed concentration may be interested in specialized fields that can be better explored outside of a pre-defined concentration curriculum. It can also be designed to support students who would like to coordinate their SCD curriculum with a second major, certificate, or preparation for graduate study.

Working with the Program Director, a student considering this concentration should describe the focus of their concentration, explain how this focus would be better served by a customized curriculum rather than by an existing concentration, and propose a course plan.

## ID Concentration Requirements

Take six concentration courses:

- Four LARP courses (SustComm, LandArch, or RegionPl) worth 3-4 credits each.
- Two relevant courses from any department worth 3-4 credits each.

### Notes:

- Students in the ID concentration should work with the Program Director to plan a course of study.
- All concentration courses must be approved in writing by the Program Director.
- No more than two 100-level courses can count toward concentration requirements.
- All courses must be completed with a grade of C- or better.
- Course offerings and times change from year to year. Check Spire for current information.

# Paths to the Degree

The B.S. in Sustainable Community Development is awarded to students who complete the following requirements:

- **Major requirements** (46 – 53 credits), including eight (8) core courses and six (6) courses in the student's area of concentration. The core courses include the IE and JYW Gen Eds.
- **Gen Ed requirements** (typically 29 credits outside the major), including courses in writing, math, analytical reasoning, biological and physical sciences, and the social world.
- **A total of 120 credits.** The credits outside of the major and Gen Ed requirements may be satisfied by courses taken for a second major, a minor, or electives of the student's choosing. Of the 120 total undergraduate credits, a minimum of 45 credits must be taken in residence at UMass Amherst.

The official requirements for a University of Massachusetts degree are governed by the University Registrar. For more information, consult the current Academic Regulations at umass.edu/registrar/sites/default/files/academicregs.pdf.

The standard completion time for an undergraduate degree is four years. The SCD major requirements typically take three years to complete, but can be done in less time if the student's schedule allows. Transfer students beginning in their junior year and SCD students entering from the AS in Landscape Contracting can plan to complete major requirements in two years.

## Online Winter and Summer Classes

University Without Walls (UWW, also called University+) offers online classes during winter and summer sessions. The Landscape Architecture & Regional Planning department occasionally offers UWW classes that can satisfy major requirements. However, offerings are not guaranteed, and students should plan to complete classes for the major during fall and spring semesters. UWW classes incur additional fees. For more information, visit umass.edu/uww.

**On the following pages are examples of what the 3-year and 4-year curriculum might look like.**

# Sample Three-Year Path

This course plan shows how major requirements can be distributed over three years. It assumes the student will earn an additional 30 credits of Gen Eds and electives beyond those listed below through a combination of transfer credits, test credits (e.g,, Advanced Placement), summer/winter session classes, or additional courses taken in fall or winter semesters.

## 1st Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 110 Intro to Community Engagement | 4 |
| SustComm 140 Awareness of the Visual Environment | 4 |
| General Education Course | 3-4 |
| General Education Course | 3-4 |
| Total credits | 14-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 232 History of SCD | 4 |
| SustComm 544 Landscape Architecture History II | 3 |
| General Education Course | 4 |
| General Education Course | 3-4 |
| Total credits | 14-15 |

## 2nd Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 574 City Planning | 3 |
| LandArch 547/547L Landscape Pattern & Process + Lab | 4 |
| General Education Course | 4 |
| Concentration Course | 3-4 |
| Total credits | 14-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 314 Writing in Community Development | 3 |
| Concentration Course | 4 |
| Concentration Course | 4 |
| General Education Course | 3-4 |
| Total credits | 14-15 |

## 3rd Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 394RI Research Issues | 3 |
| Concentration Course | 3-4 |
| Concentration Course | 4 |
| Elective Course | 4 |
| Total credits | 14-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| Concentration Course | 4 |
| Elective Course | 4 |
| Elective Course | 3-4 |
| Elective Course | 3-4 |
| Total credits | 14-16 |

# Sample Four-Year Path

## 1st Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 110 Intro to Community Engagement | 4 |
| SustComm 140 Awareness of the Visual Environment | 4 |
| General Education Course | 4 |
| General Education Course | 3-4 |
| Total credits | 15-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 232 History of SCD | 4 |
| General Education Course | 4 |
| General Education Course | 3-4 |
| Elective Course | 3-4 |
| Total credits | 14-16 |

## 2nd Year

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 547/547L Landscape Pattern & Process + Lab | 4 |
| Concentration Course | 4 |
| General Education Course | 3-4 |
| General Education Course | 3-4 |
| Total credits | 14-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 544 Landscape Arch History II | 3 |
| Elective Course | 4 |
| Elective Course | 4 |
| Concentration Course | 3-4 |
| Total credits | 14-15 |

## 3rd Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 574 City Planning | 3 |
| Concentration Course | 4 |
| Concentration Course | 4 |
| Elective Course | 3-4 |
| Total credits | 14-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 314 Writing in Community Development | 3 |
| Concentration Course | 4 |
| Elective Course | 4 |
| Elective Course | 3-4 |
| Total credits | 14-15 |

## 4th Year

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 394RI Research Issues | 3 |
| Concentration Course | 4 |
| Elective Course | 4 |
| Elective Course | 3-4 |
| Total credits | 14-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| Elective Course | 4 |
| Elective Course | 4 |
| Elective Course | 4 |
| Elective Course | 3-4 |
| Total credits | 15-16 |

# Accelerated Master's Programs (4+1 and 4+2)

BS-SCD students may choose to pursue the 4+1 accelerated program towards a Master's Degree in Regional Planning (MRP) or the 4+2 program towards a Master's in Landscape Architecture (MLA). In these accelerated programs, students begin graduate coursework in the final year of their undergraduate degree, thereby reducing the total time required to complete the MRP or MLA.

The MLA and MRP programs offer a professionally accredited graduate education and training in their disciplines. These graduate degrees provide students with a rich educational experience in many areas of urban landscape design, management and planning, including sustainable development, policy analysis and implementation, environmental policy and planning, use of information technology, and other advanced planning tools and techniques.

The BS-SCD core curriculum is designed to provide students with an interdisciplinary foundation in natural and social sciences, as well as design and planning fields, applicable to a wide range of planning and design issues. SCD students are therefore well prepared for graduate study in these fields.

Students pursuing accelerated graduate programs should plan to have their Gen Ed and major requirements nearly or entirely satisfied by the end of their junior year. Senior year coursework will primarily be classes required for the first year of the graduate program. To graduate from the BS-SCD program, students need a minimum of 120 credits, 12 of which can be counted toward the master's degree. These 12 graduate-level credits (500 or above) must be taken as free electives during the senior year. Classes undergraduates take in the MRP or MLA curricula can count towards SCD concentration requirements with approval of the Program Director. Graduate courses taken as an undergraduate satisfy graduate curriculum requirements but not graduate credit requirements.

The **BS-SCD + MRP** (4 + 1 years) will prepare students for a professional career in public policy, resource management, economic development and planning at the national, state and local level. Undergraduate students working towards the 4+1 MRP will take SCD concentration classes in either City and Society or Climate Change and Green Infrastructure. In their senior year, they should take 12 credits of graduate-level MRP required courses. Students in the 4+1 program must take a total of 36 credits while enrolled as a graduate students, following graduation from the BS-SCD program. The 36 credits for the MRP may require students to take classes during the summer semester after completing their Bachelor's degree, or to take additional coursework during the fall and spring semesters of their year in graduate school. As part of the MRP program, 4+1 students will also be required to do a professional internship, whether paid or unpaid, preferably for academic credit. This can be completed during the summer or the academic year. It provides a way to acquire relevant professional experience as a critical complement to academic work. For more information about MRP requirements, visit: umass.edu/larp/graduate/regional-planning-mrp.

The **BS-SCD + MLA** (4 + 2 years) will provide the fundamentals of the theory and practice of landscape architecture, including the history, principles, techniques, and materials of landscape design. Undergraduate students seeking the 2-year MLA will take SCD concentration classes in either Built Environment or Landscape Design and Build, and use electives to take 12 credits of the 500-level required MLA studio in their final year. Forty-eight credits are required to complete the MLA degree. SCD students should take as many requirements as possible to make room to graduate-level studios in the senior year. Six credits taken as free electives in the BS-SCD can be applied to MLA requirements. Graduate-level studios may count towards the BE concentration. LDB Concentration classes fulfill some of the MLA prerequisites. For more information about MLA requirements, visit: umass.edu/larp/graduate/landscape-architecture-mla.

Students considering the Master programs should plan their course of study with both the undergraduate and graduate Program Directors *before* their senior year. In their senior year, students must apply to the Graduate School, then be admitted by either the MRP or MLA program.

# Sample Five-Year BS in Sustainable Community Development + Master of Regional Planning (4+1 program)

## 1st Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 110 Intro to Community Engagement | 4 |
| SustComm 140 Awareness of the Visual Environment | 4 |
| General Education Course | 3 |
| General Education Course | 4 |
| Total Credits | 15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 232 History of SCD | 4 |
| General Education Course | 4 |
| General Education Course | 3 |
| General Education Course | 4 |
| Total Credits | 15 |

## 2nd Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 547/547L Landscape Pattern & Process + Lab | 4 |
| SustComm 574 City Planning | 3 |
| General Education Course | 3-4 |
| General Education Course | 4 |
| Total Credits | 14-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 314 Writing in Community Development | 3 |
| SustComm 544 Landscape Arch History II | 3 |
| General Education Course | 4 |
| Concentration Course | 3-4 |
| Total Credits | 13-14 |

## 3rd Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 394RI Research Issues | 3 |
| Concentration Course | 4 |
| Concentration Course | 3-4 |
| Concentration Course | 3-4 |
| Total Credits | 13-15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| Concentration Course | 4 |
| Concentration Course | 4 |
| Elective Course | 3-4 |
| Elective Course | 3-4 |
| Total Credits | 14-16 |

## 4th Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| RegionPl 651 Planning History and Theory | 3 |
| RegionPl 620 Quantitative Methods in Planning | 3 |
| RegionPl 630 Public Participation | 3 |
| MRP Concentration Course | 3 |
| Elective Course | 3-4 |
| Total Credits | 15-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| RegionPl 656 Judicial Planning Law | 3 |
| RegionPl 625 Introduction to GIS for Planning | 3 |
| RegionPl 635 Research Issues | 3 |
| MRP Concentration Course | 3 |
| Elective Course | 3-4 |
| Total Credits | 15-16 |

Twelve (12) graduate-level credits, taken as free electives during the senior year, count for the graduate degree. The additional 12 graduate-level credits can satisfy graduate curriculum requirements but not graduate credit requirements. A master's degree requires a minimum of 36 credits earned while enrolled as a graduate student.

## Graduate Summer

| SUMMER SESSION | CREDITS |
|---|---|
| Internship or on-line MRP electives | 6 |
| Total Credits | 6 |

## Graduate Academic Year

| FALL SEMESTER | CREDITS |
|---|---|
| RegionPl 675 Regional Planning Studio | 6 |
| MRP electives | 9 |
| Total Credits | 15 |

| SPRING SEMESTER | CREDITS |
|---|---|
| MRP Project or Thesis | 6-9 |
| MRP electives | 6-9 |
| Total Credits | 15 |

The accelerated MRP program requires 36 graduate-level credits: 6 or 9 credits for master's project or thesis, respectively, 9 concentration credits (two required and one from the list of recommended courses), and 21 or 18 credits (depending on whether the student has done a project or a thesis) for the MRP core curriculum.

Please consult with the MRP Program Director to chart the best course for successfully completing the graduate degree.

# Sample Six-Year BS in Sustainable Community Development + Master of Landscape Architecture (4+2 program)

## 1st Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 110 Intro to Community Engagement | 4 |
| SustComm 140 Awareness of Visual Environment | 4 |
| General Education course | 4 |
| General Education course | 3-4 |
| Total Credits | 15-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 232 History of SCD | 4 |
| General Education course | 4 |
| General Education course | 4 |
| General Education course | 3-4 |
| Total Credits | 15-16 |

## 2nd Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 547/547L Landscape Pattern & Process + Lab | 4 |
| General Education course | 4 |
| General Education course | 3-4 |
| General Education course | 4 |
| Total Credits | 15-16 |

| SPRING SEMESTER | CREDITS |
|---|---|
| SustComm 314 Writing in Community Development | 3 |
| SustComm 544 Landscape Arch History II | 4 |
| Concentration Course | 3-4 |
| Concentration Course | 4 |
| Total Credits | 14-15 |

## 3rd Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| SustComm 547 City Planning | 3 |
| SustComm 394RI Research Issues | 3 |
| Concentration Course | 4 |
| Concentration Course | 3-4 |
| Total Credits | 13-14 |

| SPRING SEMESTER | CREDITS |
|---|---|
| Concentration Course | 4 |
| Concentration Course | 4 |
| Elective course | 3-4 |
| Elective course | 4 |
| Total Credits | 15-16 |

## 4th Year Undergraduate

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 501 Studio I | 3 |
| LandArch 502 Studio II | 3 |
| Elective course | 3-4 |
| Elective course | 3-4 |
| Total Credits | 12-14 |

| SPRING SEMESTER | CREDITS |
|---|---|
| LandArch 503 Studio III | 3 |
| LandArch 504 Studio IV | 3 |
| Elective course | 3-4 |
| Elective course | 3-4 |
| Total Credits | 12-14 |

Students should take as many requirements as possible to make room to graduate-level studios in the Senior year. Graduate-level studios may count towards the BE concentration. LDB Concentration classes fulfill some of the MLA prerequisites. Some MLA classes taken as an undergraduate (e.g., Landscape Patterns and Process, Landscape Architecture History) may count towards as graduate curriculum requirement, but not graduate credit requirement. See the graduate program director for details and to plan a curriculum.

## 1st Year Graduate

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 605 Studio V | 3 |
| LandArch 606 Studio VI | 3 |
| LandArch 613 Site Engineering | 3 |
| Elective Course | 3 |
| Total Credits | 12 |

| SPRING SEMESTER | CREDITS |
|---|---|
| LandArch 607 Studio VII | 3 |
| LandArch 608 Studio VIII | 3 |
| LandArch 635 Research Issues | 3 |
| Elective course | 3-4 |
| Total Credits | 12-13 |

## 2nd Year Graduate

| FALL SEMESTER | CREDITS |
|---|---|
| LandArch 609 Studio IX | 3 |
| LandArch 610 Studio X | 3 |
| LandArch 644 Interdisciplinary Design Collaboration | 1 |
| Elective | 3 |
| Elective | 3 |
| Total Credits | 13 |

| SPRING SEMESTER | CREDITS |
|---|---|
| LandArch 651 Professional Practice | 3 |
| LandArch 698 MLA Project or LA 699 MLA Thesis | 6-9 |
| Elective | 3 |
| | |
| | |
| Total Credits | 12-15 |

Please consult with the MLA Program Director for exceptions and other prerequisites.

# Double Majors and Dual Degrees

Students pursuing a **double major** (primary and secondary majors, one Bachelor's degree) are required to complete at least 120 credits. Credits can double count for both majors, unless the other department has a restriction on double counting.

Students pursuing a double major with Landscape Architecture and Sustainable Community Development must choose either City and Society or Climate Change and Green Infrastructure as their SCD concentration. For these students, no class that counts towards a Landscape Architecture major requirement may be used to satisfy a Sustainable Community Development concentration requirement.

Students pursuing a **dual degree** (two Bachelor's degrees and two majors) must earn a minimum of 150 credits, completing all of the major and college requirements for each major, and also completing at least 30 additional units in residency. This must be accomplished within the normal ten semesters, unless a Dean grants an extension.

For students doing a double major or a dual degree, the University requires the completion of the Integrative Experience (IE) and Junior Year Writing (JYW) **Gen Ed requirements** only once, in the major designated as the primary major. Students with Sustainable Community Development as their secondary major are not required to take the major's Junior Year Writing class (SustComm 314). However, students with Sustainable Community Development as their secondary major *are* required to take the IE class in Sustainable Community Development (SustComm 394RI). The class is not necessary to meet Gen Ed requirements, but is still needed to satisfy the major requirements.

# Studying Abroad

Many SCD students study abroad. Being immersed in another culture is a way for SCD majors to expand their understanding of communities, places, and sustainability. The department does not sponsor a study abroad program specific to the major, but SCD students have travelled to many places through programs sponsored by other universities and organizations.

The International Programs Office has identified many international courses that can satisfy Gen Ed requirements. Students can often count classes taken abroad towards SCD concentration requirements. The core SCD curriculum generally must be taken in residence at UMass Amherst. Course substitutions for major requirements must be approved by the Program Director. Because of the scheduling of core MRP courses, studying abroad in the spring semester is generally easier than in the fall semester.

Students interested in studying abroad should visit the International Programs Office (umass.edu/ipo) to learn about available programs and the process for going abroad. They should also meet with the SCD Program Director or Peer Advisor to plan how studying abroad can fit into their plan for graduation.

# Departmental Honors

**SCD Honors Program Director: Theodore Eisenmann**

Departmental Honors (DH) are awarded to students who complete the DH track in the Commonwealth Honors College in coordination with their major. They are recommended for students who wish to undertake advanced research, especially those who intend to pursue graduate study in the discipline of their major. Students may complete DH as part of the full CHC curriculum, which includes Honors General Studies, or they may complete DH alone. For information about DH, visit: umass.edu/honors/book/departmental-honors-requirements.

Departmental Honors in Sustainable Community Development requires the completion of designated honors courses, including the completion of an honors thesis. For more information, contact the SCD Honors Program Director.

# Minor in Sustainable Community Development

The Sustainable Community Development Minor prepares students to create a more socially and environmentally balanced world through design and planning. Our courses provide both theoretical knowledge and professional skills in the cultural and ecological aspects of the built environment.

The undergraduate minor requires successful completion of five courses (at least 3 credits each) selected from classes within the Sustainable Community Development curriculum:

- SUSTCOMM 110 Transforming Your World: Introduction to Community Engagement (4cr.) (Gen Ed SB, DU)
- SUSTCOMM 125 Global Cities and Global Issues (4cr.) (Gen Ed SB)
- SUSTCOMM 140 Awareness of the Visual Environment (4cr.) (Gen Ed AT)
- SUSTCOMM 150 Intro to Environmental Design (3cr.)
- SUSTCOMM 205 Dynamics of Human Habitation (4cr.) (Gen Ed I)
- SUSTCOMM 225 Race, Gender, and Sexuality & Equity (4cr.) (Gen Ed DU, SB)
- SUSTCOMM 232 History of Sustainable Community Development (4cr.) (Gen Ed HS, DG)
- SUSTCOMM 281 Visual Communication: Design Principles & Digital Skills (3 cr.)
- SUSTCOMM 285 Climate Change and Resilient Cities (4cr.)
- SUSTCOMM 292 Visual Communication: Design Principles and Digital Skills (3cr.)
- SUSTCOMM 333 Introduction to Community Economic Development (4cr.)
- SUSTCOMM 335 Plants in the Landscape (3cr.)
- SUSTCOMM 352 Planning Tools and Techniques (3cr.)
- SUSTCOMM 533 Urban Greening Theory & Practice (3 cr.)
- SUSTCOMM 543 History of Architecture & Landscape I (4cr.) (Gen Ed AT)
- SUSTCOMM 544 History of Architecture & Landscape II (3cr.)
- REGIONPL 545 Intro to Land Use (3cr.)
- SUSTCOMM 574 City Planning (3cr.)
- SUSTCOMM 583 Digital Technology for Design Representation (3cr.)
- REGIONPL 580 Sustainable Cities (3 cr.)
- REGIONPL 585 Planning for Climate Change (3/4cr.)
- LANDARCH 547/L Landscape Pattern and Process + Lab (4cr.)
- LANDARCH 587 People and the Environment (3cr.)
- LANDARCH 591I Sustaining Green Infrastructure Planning and Design (3cr.)
- LANDARCH 592M Material Experiments (3cr.)
- REGIONPL 625 Introduction to Geographic Information Systems for Planning (3 cr.)

## Notes

- LARP courses not listed here may be used to satisfy minor requirements with the approval of the Program Director.
- No more than two courses used to fulfill the requirements of any major may be applied towards the fulfillment of the SCD minor.
- For students majoring in Landscape Architecture, no courses used to fulfill BS-LA program requirements can be applied to the SCD Minor.
- No more than one course taken abroad can be used to fulfill the SCD Minor requirements.
- All coursework for the minor must be completed with a grade of C- or better.
- Prerequisites or other restrictions may apply. Check Spire for current information.

Students interested in the SCD Minor should submit a Declaration of Minor form to the Program Director. The minor can be declared any time before graduation. Students do not need to declare the minor before beginning SCD courses.

# Scholarships and Awards

The opportunities listed below are subject to change; please seek the most current information from the listed websites.

### UMass Financial Aid
UMass Financial Aid Services maintains a list of scholarship opportunities available to students. These scholarships are awarded on the basis of academic merit and/or financial need. For more information, visit umass.edu/umfa/scholarships.

### SBS Scholarships
The College of Social Behavioral Sciences offers a variety of scholarships to support and help students reach their academic and professional goals. If you are pursuing internships, studying abroad, or working on research projects, we encourage you to apply for funding to help cover associated costs. SBS also provides financial support for outstanding academic achievements, need-based situations, and work-related endeavors. For more information, visit umass.edu/sbs/scholarships.

### Go Get the Sustainable World Scholarship
Funded by an SCD alum, the Go Get the Sustainable World Scholarship supports juniors in the Sustainable Community Development major who are planning a community project which will have positive impact on the communities with which they collaborate. Awards of $5,000 are available each year. Applications are due in the spring.

### Honors College Scholarships
Matriculated Commonwealth Honor College (CHC) students who have attended at least one semester are eligible to apply for scholarships. Available scholarships can be viewed with the Scholarship Selector at umass.edu/honors/scholarships. The Office of National Scholarship Advisement assists CHC students in applying for nationally competitive scholarships, fellowships, and awards.

### Department of Landscape Architecture and Regional Planning Awards
The department offers a number of awards thanks to support from alumni and friends of the department. Students are not able to apply for LARP undergrad scholarships; they are awarded by the faculty based on awards criteria and student's performance.

### Undergraduate Sustainability Research Award
Undergraduate students who have completed a sustainability focused research paper or project for one of their courses are encouraged to apply for the Undergraduate Sustainability Research Award, offered through the UMass Library. Completed Applications will need to include a signed nominating letter from the professor whose course the research was conducted for. For more information, visit guides.library.umass.edu/undergradsustainability.

### Graduate Scholarships (for students in the 4+1 and 4+2 programs)
While in graduate school, the Department offers a number of fellowships, assistantships, and work-study programs for many students in need of financial assistance. Although preference is given to students already enrolled, entering students in need of financial aid are encouraged to discuss this possibility with the Department Head or their Program Director. The Department's ability to assist students financially varies from year to year. Any student receiving an assistantship receives a tuition waiver plus the waiver of some fees for that semester. Funding promised to incoming students is guaranteed for the first year only. Incoming foreign students are eligible to apply for a tuition waiver through the Department Head. Current foreign graduate students with one of these waivers need to reapply during the spring semester of their first year for a waiver for the following year. They are not automatically renewed.

The university maintains an office dedicated to helping graduate students with grants and fellowships. Visit the Graduate Students Grants Office at umass.edu/gradschool/funding-support.

## Other Resources

Many private firms, non-profit organizations, and family foundations offer support for students in specific fields. These opportunities are typically competitive. Students enrolled in the SCD Program are ideal candidates for environmentally focused scholarships and/or awards in fields such as horticulture, landscape design, environmental studies, land use planning, and sustainable food and farming. Those listed below are examples, but the department will sometimes let students know of others as we become aware of them.

The **National Garden Clubs** offers significant financial aid to students majoring in specific fields. These scholarships are available to undergraduate juniors, seniors, and graduate students pursing a Master's Degree. To learn more, visit gardenclub.org/scholarships.

The **Garden Club Federation of Massachusetts** offers scholarshipsfor undergraduate students (including high school seniors who will be freshmen in the Fall), and graduate students who will be attending accredited colleges and universities. Applicants must have maintained a legal residence in Massachusetts for at least one year, have a minimum 3.0 GPA, have good character, be enrolled in an environment-related program, and have financial need. To learn more, visit www.gcfm.org/gcfm-scholarships.

**Informational Resources**: National and local scholarships are posted on several websites. Look for scholarships opportunities relevant to SCD Students are listed on environmentalscience.org and the Green Program at scholarships.com.

# Careers

Students completing the Sustainable Community Development major are well qualified for positions with non-profit organizations, community development agencies, municipalities, and private firms specializing in site, municipal and regional level work. Our students learn to facilitate and lead change in communities. Whether you want to reduce climate change, bring permaculture into communities, plan regional greenways, get better resources to impoverished communities, research green energy adoption, or work with diverse stakeholders and publics, you can do it here.

## Types of employers of Sustainable Community Development graduates:

- Municipalities
- Regional planning agencies
- Community-based non-profit organizations
- Social justice organizations
- Research & advocacy groups
- Political campaigns
- Sustainable energy firms
- Engineering firms
- Construction companies
- Design firms
- Real estate developers
- Consulting firms
- State and federal agencies

## Sustainable Community Development majors have worked or interned with:

- City of Boston – Bluebikes
- City of Bridgeport (Conn.)
- City of Danbury (Conn.)
- City of Newton (Mass.)
- City of Northampton (Mass.) Office of Planning & Sustainability
- City of Springfield (Mass.)
- New York City Council
- Town of Amherst (Mass.)
- Town of Littleton (Mass.) Electric Light and Water Department
- Environmental League of Massachusetts
- Franklin Regional Council of Governments
- Cape Cod Commission
- Old Colony Planning Council
- Pioneer Valley Planning Commission
- Greater Providence Board of Realtors
- Massachusetts Executive Office of Energy and Environmental Affairs
- Massachusetts Public Interest Research Group (PIRG)
- Massachusetts Department of Environmental Protection
- Northeast Sustainable Energy Association
- ReGreen Springfield
- The Nature Conservancy
- Trustees of Reservations
- Global Village (Beijing)
- UMass Clean Energy Extension
- U.S. Department of Agriculture
- U.S. Fish & Wildlife Commission

# Course Descriptions

Courses are listed in numerical order, regardless of prefix. Prior course numbers are indicated in parentheses. Offerings are subject to change; check Spire for up-to-date information.

**SustComm 110** **Transforming Your World: Introduction to Community Engagement (4 cr.)**

C. Barchers

To imagine changing even a small part of the world is a daunting, yet exhilarating proposition. Through class exercises, readings, exploration of planning policy, guest speakers, and a group project that takes you from campus to town to region, you will acquire the knowledge and skills necessary for becoming a person who can make a difference. By the end of the semester, you will have learned to connect ideas with action, have made a positive contribution to your community, and understand, through experience, the personal and social value of community engagement. This is a foundation course for the Civic Engagement and Public Service certificate and counts towards requirements in the undergraduate Public Policy degree. (Gen Ed SB, DU)

**SustComm 125** **Global Cities and Global Issues (4 cr.)**

D. Ramsey-Musolf

Cities are dynamic organisms whose inhabitants require food, water, shelter, safety, commerce, leadership, and equity. For most people, the city can be a wonderful place to live in. For persons without privilege, the necessary goods and services that are required for a quality life may be lacking. In this course, students will note that every village, town, city, or mega-city has some type of challenge. By examining cities within a global context, students should recognize that any challenge can also be viewed as an opportunity for implementing positive change. As such, we examine global cities in order to ask a central question: what does it mean to be an active and engaged citizen living in any city, town, or village? (Gen Ed SB, DG)

**SustComm 140** **Awareness of the Visual Environment (4 cr.)**

P. McGirr

Examines physical elements that compose a variety of visual environments including gardens and paintings; the cultural values underlying different types of American landscapes, from wilderness to cities; and the ways in which other cultures perceive, use, and create their own visual environments. (Gen Ed AT)

**SustComm 150** (197D) **Intro to Environmental Design (3 cr.)**

J. Thurber

This course is an introduction to fundamental "design thinking" and graphic communication skills in environmental design. This studio-based course introduces students to reading and responding to the site through a series of readings, drawing exercises and model explorations. Exercises will progress from abstract to engagement with real places. This course is appropriate for students interested in the built environment and in exploring the process of design through making. No previous design or drawing experience is required. Students will learn to experience and record the landscape, to design in response to the site, to think creatively, to generate design ideas and understand design as a process, to gain knowledge of design precedents and principles, and to learn tools and techniques of visual expression.

**LandArch 201** **Fundamentals of Design (Studio I) (3 cr.)**

M. Davidsohn

Introduction to the skills necessary to envision and explore design. The media of landform, water, plants, and structures are explored as defining agents of human space in the garden and landscape. This studio encourages students to think creatively, to generate design ideas and understand design as a process through drawing and model making, to gain knowledge of design precedents and principles, and to learn tools and techniques of visual expression.

**SustComm 205** **Dynamics of Human Habitation (4 cr.)**

M. DiPasquale

How the built environment is shaped by humans. The forces that go into developing human settlements, how these environments change, how different groups experience the environment, and how environmental designers work within this context. (Gen Ed I, U)

**SustComm 225** **Race, Gender and Sexuality & Equity (4 cr.)**

D. Ramsey - Musolf

In capitalist societies, inequity creates winners and losers, profits and losses, and the privileged and the marginalized. Inequity is defined as a "lack of fairness or justice" and refers to a system of privilege that is created and maintained by interlocking societal structures (i.e., family, marriage, education, housing, government, law, economics, employment, etc.). Alternatively, equity is defined as "the state, quality or ideal of being just, impartial and fair." To achieve and sustain equity, equity needs to be thought of as a structural and systemic concept and requires action. In this seminar, we will question society's values and deepen one's understanding of "self" and agency as we examine how people create and implement equity when such persons are defined by their race, gender, or sexuality. (Gen Ed SB, DU)

**SustComm 232** **History of Sustainable Community Development (4 cr.)**

P. Dunn

This course introduces students to the 4E framework of sustainability assessment, examining the interdependence of ecology, economy, equity, and engagement in addressing opportunities as well as challenges for 21st century urban planning, policy, design, and development on local, regional, and international scales. (Gen Ed HS, DG)

**LandArch 254** (297M) **Business Concepts of Landscape Contracting (3 cr.)**

M. Davidsohn

The varied aspects of running a small landscape contracting business.

**SustComm 285** (297G) **Climate Change and Resilient Cities (3 cr.)**

E. Infield

Climate change is one of the most pressing challenges facing us this century. Cities around the world have begun taking action to reduce their greenhouse gas emissions, identify their climate risks, and build resilience to the coming changes. Solutions also achieve goals for jobs, public health, justice and a vibrant shared life. In this course we will explore the challenges of a changing climate and investigate frameworks and tools to understand and address climate issues that impact people and their communities. We use the UMass campus as our laboratory 'city' for applying knowledge to students' lives and experiences. Our goal is for students who complete this course to feel empowered to advocate for better decisions at a local, regional, national or international scale.

**SustComm 281** (297L) **Visual Communication: Design Principles & Digital Skills (3 cr.)**

C. Aragón

The course will cover principles of graphic design, visualizing information, information graphics, and portfolio design. Course lectures will be complemented by digital skills workshops where students will become familiar with graphic design software (Adobe Photoshop, Illustrator and InDesign). Through weekly exercises, students will build the skills necessary to complete a portfolio of creative work, or a visual book or project showcasing a body of research. For students interested in visual communication, data visualization, graphic design and portfolio design.

**LandArch 294A** **Construction Materials (3 cr.)**

M. Davidsohn

Introduction to materials used in landscape construction, their design potential and limitations. Design details and construction methods discussed.

**LandArch 302** (397B) **Residential Design (Studio III) (3 cr.)**

D. Gordon

Introduces the concepts and techniques of residential design at the scale of the garden. As students move to a real site and client, the garden is explored as a contemporary art through the design of an individual example. Precedent study and appropriate site analysis techniques are introduced as part of the design process.

**SustComm 314** **Writing in Community Development and Landscape Architecture (3 cr.)**

T. Eisenmann

This course is intended to develop advanced writing and critical thinking skills for upper level students majoring in Landscape Architecture and Sustainable Community Development. Toward that goal, the course is structured around typical modes of writing that support this kind of work. (Gen Ed: JYW)

**SustComm 333** **Intro to Community Economic Development (4 cr.)**

W. Feiden

Sustainability can be defined as a harmonic balance of the Economy-Environment-Equity trilogy. Community Economic Development explores the economy element of sustainability, within the context of social equity, a diverse and pluralistic society, and the natural and built environment. Specifically, we will examine economic development at the community or local scale from a practitioner's perspective. No community can be sustainable if the economy is too weak, in a downward spiral, or is not balanced with other aspects of sustainability. Cities provided unparalleled opportunities for wealth creation and upward mobility, but for many residents, especially low income and minority residents, the likelihood of upward mobility is slim. We will pay special attention to diversity, institutional racism, and economic development in downtowns, post- industrial cities, and under-invested communities. We will examine how to understand a local economy, both quantitatively and qualitatively, and opportunities for local governments and community organizations to intervene to improve the economy and make it more sustainable.

**SustComm 335** **Plants in Landscape (4 cr.)**

E. Carr

Introduction to 200 native and ornamental plants used in landscape architectural, horticultural, arboricultural, and other design uses, their identification, uses, and cultural requirements. Weekly field lab on around campus. Workbook with sketches required.

**SustComm 352** (397P) **Planning Tools and Techniques (3 cr.)**

W Feiden

This class is for anyone working for or with local or regional governments. It is a hands-on examination of the tools and techniques communities use to get good things done: zoning and regulations, protection of natural areas and downtown parklets, tweaking transportation systems to serve all modes of travel, finding the money, managing planning functions, regulations, and everything in between. The class provides enough breadth and depth for planning and design professionals to use management, regulatory, investment, and policy interventions to improve the sustainability and quality of life in communities.

**SustComm 394RI** **Research Issues in Community Development (3 cr.)**

M DiPasquale

Survey of research issues in environmental design and planning. Designed to assist students in developing research in their area of interest. Includes selecting a topic for research, synthesizing the pertinent literature, developing research questions, designing a research study, and communicating the research findings verbally, visually , and in writing. (Gen Ed IE)

**SustComm 543** **Landscape Architecture History I (4 cr.)**

E. Brabec

Introduction to the historic forces that have shaped the manmade environment from ancient civilizations to the Renaissance as manifested in particular environments. Students are expected to understand historic and geographical contexts, and cultural forces that have contributed to changes in the built environment. (Gen Ed AT)

**SustComm 544** **Landscape Architecture History II (3 cr.)**

E. Carr

Continuation of LA 543, from the Renaissance to the present. Emphasis on Europe and North America and landscape design traditions that have led to contemporary design movements. A 'canon' of specific works, individuals, and theories are studied in the context of their time and place. Students learn to see, analyze, and appreciate works of landscape design as the result of the artistic, cultural, and natural forces that have shaped them.

**RegionPl 545** **Intro to Land Use (3 cr.)**

D Ramsey-Musolf

Land-Use is a process in which various constituencies (planners, elected officials, private corporations, advocates, and the public) manage a community's land and the land's subsequent development. This course examines trends in land -use (e.g., Growth Management, Smart Growth, New Urbanism, Sustainability, Shrinking Cities, etc) in order to understand that development is a common occurrence. However, the choice of the applied land-use and the desired outcome are contextually dependent on location and development trends.

**LandArch 547** **Landscape Pattern and Process (3 cr.)**

D MacDonald

Landscape ecology as applied to planning and design decision-making. Explores landscape structure, function and dynamic processes at multiple scales. Introduces theoretical and technical knowledge that supports sustainable landscape planning, design, and management. Lab includes a series of local field trips and introductory labs in GIS.

**LandArch 547L** **Lab for Landscape Pattern and Process (1 cr.)**

D MacDonald

This course must be taken concurrently with LandArch 547, Landscape Pattern & Process.

**BCT 550** **Construction Project Management (3 cr.)**

C Xiao

Introduces concepts of project management for design and construction, including initiation, planning, implementation, monitoring, control, closeout, documentation, scope, budget, and scheduling, teamwork and communication, contracts and negotiation, and risk management.

**SustComm 574** **City Planning (3 cr.)**

P. Dunn

Introduction to city and regional planning and the urban planning profession. The role of the planner plays in addressing the wide range of problems and opportunities, city or regional, or may in the future, confront America's modern urban environment.

**RegionPl 585** **Planning for Climate Change (3 cr.)**

E. Infield

This seminar reads some of the most current literature on the future of the urban form given climate change, and allows time and shared space to reflect on what these coming changes mean for (primarily local) government as well as governance. The class focus will be on implications of these coming conditions for built form both now and in the future, with a goal of developing a working understanding of what municipal, regional, and state planners and policymakers need to know now about these conditions to provide leadership to communities

**LandArch 587** **People and the Environment (3 cr.)**

R. Ryan

Interdisciplinary seminar on the applications of environmental psychology research to planning and design. Topics include landscape preference, territoriality and defensible space, way finding, and restorative settings/therapeutic gardens.

**SustComm 591G** **Urban Greening Theory & Practice (3 cr.)**

T. Eisenmann

The purpose of this course is to explore the theoretical and practical expressions of urban greening, defined here as the introduction or conservation of outdoor flora in cities. Toward this goal, the course is organized in two parts: First, we will analyze the various discourses that animate urban greening theory. Second, we will explore how urban greening practice has, and is, expressing itself in cities around the world. This combined inquiry into theory and practice will enhance our ability to think critically about urban greening and develop strategies that respond to the needs of 21st century cities.

**RegionPl 591I** **Sustainable Green Infrastructure Planning and Design (3 cr.)**

R. Ryan

Green infrastructure planning requires a systems approach to improving ecological function while providing vital ecosystem services for human populations. This course focuses on promoting sustainable green infrastructure to build resiliency to climate change.

**SustComm 583** (597A) **Digital Technology for Design Representation (3 cr.)**

S. Solano

Introduction to the digital tools available for environmental design professionals to model the landscape and represent design ideas. The major topics include computer aided design, rendering plans and image editing, three dimensional modeling and multimedia for presentations. Integrating data across multiple applications is a theme.

**LandArch 592M** **Material Experiments (3 cr.)**

C Aragón

This course will introduce students to innovative materials and technologies in landscape architecture. The study of landscape materiality will take place in two major forms: through a survey of contemporary material technologies, and through direct experimentation with the materials. The range of materials and technologies will be broad, ranging in subjects from upcycling, to smart materials, those with the potential to transform energy found in the environment into usable forms (i.e. electricity). The goal of the course is to generate prototypes and ideas that foster design innovation in landscape architecture.