

# The Environment and Sustainable Development Unit (ESDU)

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ESDU is an interdisciplinary research and development unit specializing in sustainable rural livelihoods. It was established at the Faculty of Agricultural and Food Sciences to promote collaboration on sustainable development initiatives among departments at AUB and with a variety of other institutions and organizations undertaking related activities.

ESDU activities, including research, capacity building, and outreach, aim at the following:

- Providing opportunities for faculty and students to work on real-life rural development projects
- Fostering partnerships between research, private and public sectors, and local communities in order to develop community-based solutions
- Networking with national, regional, and international centers and institutes in the areas of integrated natural resource management and sustainable development

For more information, refer to [www.aub.edu.lb/fafs/esdu](http://www.aub.edu.lb/fafs/esdu).

## MS in Rural Community Development (RCODE)

The Faculty of Agricultural and Food Sciences offers an interdepartmental graduate program hosted by the Environment and Sustainable Development Unit, that leads to the degree of Master of Science (MS) in Rural Community Development (RCOD, thesis or non-thesis).

Graduates of the program will gain knowledge to improve prospects of rural development and build their capacities in community development to better design, manage, follow up, evaluate and monitor projects either in the public or private sector, locally, regionally and internationally.

The program combines theoretical and experiential courses from the university at large. The MS in Rural Community Development focuses on the following:

- The major theoretical and conceptual approaches to Rural Development
- The elaboration and implementation of sound rural development policies and projects
- The capacity of conducting research in the social, economic, political and environmental dimensions of Rural Development
- The qualitative and quantitative instruments of social enquiry to effectively pursue studies in Rural Development

The core program emphasizes community and participatory development, sustainable livelihoods, rural and agricultural policies, agrarian change, gender issues, social analysis of communities, environmental transformations, design and planning, program development and non-profit management, and community action research and skills for community change. Elective courses provide the desirable flexibility to enhance the breadth of the program and its multi-disciplined approach from registered programs at the FAFS and other faculties. Such courses allow specialization in environmental and natural resource management, community nutrition and food security, project planning, sustainable agriculture, communication and development, and community health.

## Requirements

All relevant requirements and regulations of the University and the Faculty of Agricultural and Food Sciences for the master's degree apply to the MS in RCODE.

Applicants must hold a bachelor's degree from AUB or its equivalent from a recognized institution of higher learning.

Eligibility for admission is the same for both the thesis MS and non-thesis MS options. The students, for reasons commensurate with specific interests and required training, may change from the non-thesis to the thesis track and vice versa, subject to approval by the department supervising the major chosen.

## Thesis and Non-Thesis Options

The degree offers both thesis and non-thesis options. The program has six core courses. These cover issues related to the theory, methods and practice of rural community development and offer the opportunity for practical experience as well as research in rural community development. Two or three specialization electives can be selected from a list of approved courses to provide further insight into specific issues in rural community development from registered programs at the FAFS and other AUB faculties.

The successful completion of the degree will require 33 credit hours. At least 27 of the total 33 credits must be earned within the Faculty of Agricultural and Food Sciences (FAFS); among these are 21 credits (for thesis students), and 18 credits (for non-thesis students). Additional 6 credits (for thesis students) and 9 credits (for non-thesis students) must be selected from the list of approved electives within FAFS. The remaining 6 credits are free electives which may be earned from courses in FAFS or AUB at large as per the below table:

	<b>Core Courses</b>	<b>FAFS Electives</b>	<b>Free Electives</b>	<b>Project / Thesis</b>	<b>Total</b>
Thesis (cr.)	15	6	6	6	33
Non-Thesis (cr.)	15	9	6	3	33

## Core Courses

### **RCOD 341 Rural Development, Theories, Debates and Challenges 3.0; 3 cr.**

This course approaches rural development from a multi-disciplinary perspective blending political economy, political ecology and political sociology. It explores the theories, debates and policies that emerged in the field of rural development. The course will provide tools to analyze key contemporary agricultural and rural development issues and challenges. It places the agricultural and rural development in the context of globally and nationally changing institutions, markets, actors and political structures, focusing on rural and agrarian transformation with particular reference to the Middle East North Africa region.

### **RCOD 342 Qualitative Research Methods in Rural Development 3.3; 4 cr.**

The course introduces students to a variety of qualitative and participatory methodological approaches to the study of rural development. It enables students to think critically about the relationship between theory, method, data and analysis in order to select appropriate qualitative methods in students' own research. It helps students to develop a critical sense of the scope and limits of different research methodologies and consider problems encountered in doing qualitative research (including ethical and political concerns) in Lebanon and the region. If RCOD 342 is not offered, equivalent course is: URPL 630- Research Methods (3 cr.) from the department of Architecture and Design/ Maroun Semaan Faculty of Engineering and Architecture and 1 cr. Tutorial (RCOD 304).

### **RCOD 343/ AGSC 301/ RCOD 343/ AGSC 301/ NFSC 301 Statistical Methods in Agriculture 2.3; 3 cr.**

The course provides an investigation of the statistical techniques needed to design experiments and analyze and interpret agricultural research data. Topics include linear regression, analysis of variance, and analysis of covariance with both continuous and categorically coded variables. Introduction to logistic regression and some nonlinear models. Surveys will be analyzed using programs like SAS and SPSS. *Prerequisites: STAT 210 or EDUC 227, and CMPS 209 or consent of instructor. Fall and Spring.* If RCOD 343 is not offered, equivalent courses are: AGSC 301 from the department of Agriculture OR NFSC 301 from the department of Nutrition and Food Sciences from the Faculty of Agricultural and Food Sciences.

### **RCOD 344 Practicum 3.3; 4 cr.**

Practicum in rural community development settings, such as projects, development agencies, governmental or non-governmental organizations. Through hands-on experience, this practicum prepares students to assume increasing levels of responsibility with competence in these settings. Students will work with the RCOD program director to find a placement in a development agency or organization in Lebanon or abroad. They will work on mutually agreed-upon projects under the supervision of a professional practitioner. Internships will be flexible both in duration and expected hours per week.

**RCOD 304      Project/Tutorial      3.0; 3 cr.**

This course provides the framework within which RCOD students develop their degree projects. During weekly class sessions, students will share elements of their projects (the problem or issue addressed, the procedures employed, outlines, drafts, etc.) for critiques by students and the professor before final presentation. The final project will involve in depth investigation of an issue.

**RCOD 305      Seminar      0.0; 1 cr.**

The course provides a forum for experience exchange and knowledge sharing. Students will present and discuss relevant issues with active and prominent figures in the community development scene in the Middle East North Africa (MENA).

**RCOD 395      Comprehensive Exam      0 cr.****RCOD 399      MS Thesis      6 cr.**

### Specialization Electives: 9 credits for non-thesis option and 6 credits for thesis option

A minimum of three courses needs to be selected from the following list for the non-thesis option and two courses for the thesis option.

**ENSC 630 / LDEM 630      Natural Resource Management      3.0; 3 cr.**

Ecosystem approach to NRM. Data sources and interpretation for NRM. Physical and socio-economic, cultural, political and geographic specificity of NRM. Principles and processes. of NRM. Case studies and practical examples in contrasting situations.

**NFSC 306A      Community Nutrition      2.0; 2 cr.**

In this course, students will be trained on the role of nutrition in improving the health and wellbeing of communities and will be equipped with skills required to conduct community-based assessment, as well as plan, implement, and evaluate community nutrition programs and policies. The course combines theory and practice where students will discuss, analyze, and experiment with the theories of behavioral change and will apply the principles of nutrition education when tackling specific nutritional problems. Students will be provided with experiential learning opportunities to assess the health and nutrition needs of specific population groups. In addition, this course will give students the opportunity to plan, implement, and evaluate small-scale nutrition interventions to improve the health and well-being of individuals within select communities. Offered Spring.

**AGSC 376      Resource and Environmental Economics      3.0; 3 cr.**

This course addresses and analyzes resource and environmental problems facing today's society, with an emphasis on providing the student with an intensive introduction to the qualitative theory necessary for an effective analysis of resource problems.

**AGSC 384      Political Economic of Middle East Development      3.0; 3 cr.**

This course provides an understanding of economic development and underdevelopment as it relates to environmental degradation and demographic, social and cultural change with special application to the economies of the Middle East.

## Free Electives: 6 credits

AUB faculties and departments offer a wide variety of courses, which may serve as electives. A minimum of two courses may be selected from among the following courses or others upon approval of the advisory committee.

**AGSC 389                      Research Methods in Applied Economics                      3.0; 3 cr.**

A course that provides an overview of theoretical and applied research methods for the study of agricultural, resource and development economics issues. *Prerequisite: AGSC 301.*

**NFSC 351                      Food Safety: Contaminants and Toxins                      3.0; 3 cr.**

General principles of food toxicology with emphasis on toxic constituents in plant, animal, marine and fungal origin, contaminants, and food processing induced toxins. Risk characterization and laws and regulations of food safety. *Prerequisite: NFSC 277.*

**PSPA 343/  
ENSC 658                      Environmental Conflict Resolution                      3.0; 3 cr.**

An introduction to contemporary approaches to global environmental negotiation and conflict resolution including the efforts of international organizations at risk communication, mediation, and facilitation. This course focuses on procedures to manage negotiations of environmental conflicts and disputes between governments, corporations, ecologists, the media, and the general population. Information is also provided on environmental dispute cases successfully resolved. *Alternate years.*

**EPHD 331                      Population Change and Health                      3.0; 3 cr.**

Population change is central to public health. This course provides a broad introduction to the field of population. It identifies core topics in population, discusses their relation to development and health and emphasizes measurement issues. Topics covered include population size and growth as they relate to resources and to population health; components of population change including fertility and mortality, their links to development and consequences for health; population composition by age and gender and by socioeconomic status, and related inequalities; and population movements including forced, internal and international migration as factors of population change and health. Special focus is given to the Arab World and the Middle East Region.

**HPCH 332                      Community Health and Development                      2.0; 2 cr.**

A course in which students learn concepts and acquire skills that are necessary for successful community health promotion and development programs. Students look critically at current trends of community development practices using relevant literature on development and community organization. Students also investigate alternative approaches necessary to improve community development practices through applications in the field. *Prerequisite: HPCH 310 or consent of instructor.*

**FSEC 300                      Food Security: Challenges and Contemporary Debate                      3.0; 3 cr.**

This course introduces concepts and principles of food security, namely availability, accessibility, utilization, and stability of food supply. Students are familiarized with the history of thought on food security, from Malthus to the Green Revolution to Sen and the inclusion of political and social factors in considering food security.

**FSEC 305      Agriculture: Technology, Supply Chains, Sustainability      3.0; 3 cr.**

This course provides an understanding of sustainable agricultural production through a value chain approach as it relates to production and productivity, water and soil management, technology, and post-harvest practices, with special application to the dry lands of the Middle East North Africa region.

**FSEC 310      Nutrition Security: Assessment and Intervention Strategies 3.0; 3 cr.**

This course introduces students to basic principles of nutrition security, community nutrition and nutritional ecology; and highlights the role that nutrition plays in improving the health and wellbeing of communities. The course aims to equip students with the knowledge and skills required to conduct population-based nutrition research, assess the nutrition needs of a population, to plan, implement and evaluate community nutrition programs and policies based on evidence-based practice and taking into consideration cultural, social and contextual dimensions.

**FSEC 315      Food Policies and their Planning Process      3.0; 3 cr.**

This course builds knowledge of the food system from local planning and policy and applied economic perspectives. The course familiarizes students with key players and issues related to the practice of food system planning (the process and practice of creating and implementing food policies), how this practice interfaces with the economy and how to place these issues in a global context.