**Sustainability courses**

**College: Agricultural Sciences and Technology**

**Department:** **Agricultural Biotechnology**

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| course number | Course name | C.H | **Related to sustainability** (social, environmental, cultural, economic) |
| 16050310 | Entrepreneurship Skills and Private Project Development | 2 | economic |
| 16050213 | Biodiversity | 3 | environmental |
| 16050412 | Green House Technology | 3 | environmental |
| 16050413 | Integrated Pest Management | 3 | environmental |
| 16050414 | Smart Agriculture Systems | 2 | Environmental, economic |
| 16050423 | Landraces Conservation and Gene banks | 3 | Environmental, economic |

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| **course number** | **Course name** | **Course Description** |
| 16050310 | Entrepreneurship | This course is an introductory course to entrepreneurship and creativity. Definition and challenges of entrepreneurship, creative thinking to do productive work projects, the link between creative ideas and available opportunities, feasibility studies, writing proposals, funding of projects, introduction of business profile, comparative measures of performance, analysis of business information, new opportunities, business objectives, evaluation of management and personnel, maintaining and strengthening existing business, overcoming weakness, operational plans, impact and management of change, and to link all these skills to agricultural biotechnology aspects |
| 16050213 | Biodiversity | This course will cover the diversity of plant and animal life. Study the classification systems of the kingdoms of living organisms and understand the basics of this classification. Study the organisms that perform photosynthesis, including bacteria, algae. To study the plant kingdom including various vascular and vascular groups (topless and seed-covered) by studying its general morphological and anatomical characteristics. It will also include studying the diversity in the animal kingdom and linking the different classification levels structurally, functionally and evolutionarily |
| 16050412 | Green House Technology | Study of types of protection (greenhouses, greenhouses, plastic tunnels), design of components, installation and maintenance of these types, methods of control of environmental factors inside the greenhouses (ventilation, relative humidity, heating and cooling means, lighting and carbon dioxide and others), various agricultural processes Its effect is to increase production and improve the quality of horticultural crops grown using advanced scientific methods, irrigation and fertilization management, weed and pest control and selected topics in protected agriculture management. The student will also learn through the practical part of the course and by 3 hours each week on the most important types of protection used in Palestine and the methods used in its management |
| 16050413 | Integrated Pest Management | This course covers the principles of integrated pest management. Environmental and economic concepts and principles of control, and ways and means by which: agricultural methods, biological, rationalization in the use of pesticides. Understand the variables that control the pest population and the proper ways to estimate the pest population and develop the appropriate plans to control it. This course also contains 3 laboratory hours each week dealing with the application of the theoretical part of this course in practice |
| 16050414 | Smart Agriculture Systems | This course aims to introduce students to the concept of smart farm and how to use modern technology in the field of sensitivities to increase and improve agricultural production by reducing waste in sources of water, fertilizers and agricultural areas in addition to providing crops with the needs of optimal growth through computer control over irrigation, fertilization, temperature and the amount of lighting |
| 16050423 | Landraces Conservation and Gene banks | This course covers methods of collection, assessment, conservation and use of plant genetic resources. Strategies for plant conservation in gene banks or in their natural hosts will be examined. The student will, through the practical part of the course and by 3 hours each week to apply the theoretical part of this course in practice |

**Department:** **Horticultural and Agricultural Extension**

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| course number | Course name | C.H | **Related to sustainability** (social, environmental, cultural, economic) |
| 16020203 | Agricultural Extension | 3 | social |
| 16020205 | Rural Development | 3 | environmental, cultural, social |
| 16020307 | Plant Genetics and Breeding | 3 | Environmental, economic |
| 16020411 | Agricultural Media | 2 | social |
| 16020413 | Agricultural Cooperation | 3 | social |
| 16020421 | Agricultural Projects Management | 2 | economic |
| 16020426 | Agricultural Finance | 2 | economic |
| 16020429 | Agricultural Education | 3 | social, cultural |
| 16020414 | Food Security | 3 | social |

**Department:** **Environment and Sustainable Agriculture**

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| course number | Course name | C.H | **Related to sustainability** (social, environmental, cultural, economic) |
| 16010407 | Economic Entomology | 3 | environmental |
| 16000105 | Principles of Agricultural Economics | 3 | economic |
| 16010201 | Introduction to Ecology | 3 | environmental |
| 16010202 | Agricultural Pollution | 2 | environmental |
| 16010203 | Water and Air Pollution | 3 | environmental |
| 16010204 | Introduction to Sustainable Agriculture | 3 | environmental |
| 16010301 | Solid Waste Management | 3 | environmental |
| 16010302 | Environmental Impact Assessment | 3 | environmental |
| 16010303 | Wastewater Treatment | 3 | environmental |
| 16010304 | Principles of Organic Agriculture | 3 | environmental |
| 16010305 | Sustainable Farm Management | 3 | environmental |
| 16010409 | Wastewater Reuse and Management | 3 | environmental |
| 16010410 | Land reclamation Techniques | 3 | environmental |
| 16010414 | Sustainable Development | 3 | Social, environmental |
| 16010416 | Environmental Information Management | 3 | Environmental, social |
| 16010417 | Natural Resources Economic | 3 | environmental |
| 16010418 | Marketing and Agricultural Extension | 3 | economic |
| 16010422 | Advance Topic in Sustainable Agriculture | 2 | environmental |
| 16010424 | Energy and Environment | 3 | environmental |