#### Course Title: Agronomy 1 (Fundamentals)

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| **University** | **Benha** |
| **Faculty** | **Faculty of Agriculture** |
| **COURSE SPECIFICATIONS:** |
| Program of which the course is given | Biotechnology & Food safety programs &Agribusiness. |
| Major or Minor element of program | Major element |
| Departments offering the program | Food safety , Biotechnology & Agribusiness |
| Department offering the course | Agronomy |
| Academic year (level) | First year, first semester. |
| Date of specification approval | 8\_ 11\_ 2015 |

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| **A- BASIC INFORMATION**  |
| Title  | Agronomy (Fundamentals) |
| Code | AG 0101 |
| Credit Hours  | 3 hours |
| Lecture | 2 Hours / week |
| Practical | 2 Hours / week  |
| Total: |  Hours |

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| **B- PROFESSIONAL INFORMATION** |
| 1. OVERALL AIMS OF COURSE |
| * The course deals with acquiring understanding and skills regarding crops origin, classification, environments soil preparation, sowing methods, fertilization, weed control, irrigation, harvest, and crop breeding.
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| 2. INTENDED LEARNING OUTCOMES OF COURSE (ILOs) |
| **A. Knowledge and Understanding:** |
| ***By the end of the course, students should:**** Recognize the origin, classification, and distribution of different field crops.
* Define different environmental factors affecting crop growth.
* Mention the appropriate cultural practices for different field crops.
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| B. Intellectual Skills: |
| ***Successful completion of this course will allow students to:**** Determine the best planting method for each field crop.
* Choose the best method of applying fertilization, irrigation and pesticides.
* Determine the best way for seedbed preparation.
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| C. Professional and Practical Skills: |
| * Apply the most appropriate cultural practices for field crops.
* Use the best method of planting for each field crop.
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| D. General and Transferable Skills: |
| * Work in team.
* Communicate effectively with others.
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| 3. CONTENTS |
| **Topic** | **No. of hours** | **Lectures** | **Practical** |
| 1. Origins and classification of crops.
 | 2 | 1 | 1 |
| 1. Geographic crop distribution (Egypt and world).
 | 4 | 2 | 2 |
| 1. Environments and crop growth.
 | 6 | 3 | 3 |
| 1. Seed-bed preparation, and seeding methods.
 | 6 | 3 | 3 |
| 1. Crop husbandry operations: replanting, thinning, fertilization, irrigation and weed control.
 | 4 | 2 | 2 |
| 1. Crop rotation.
 | 4 | 2 | 2 |
| 1. Crop breeding methods.
 | 2 | 1 | 1 |
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| Total | 28 | 14 | 14 |

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| 4. TEACHING AND LEARNING METHODS |
| 1. Lectures.
2. Lab
3. Assignments.
4. Reports.
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| 5. STUDENT ASSESSMENT METHODS |
| ***Students will be evaluated by attendance, fulfillment and effort in exercises and presentations, and examination grades:***1. Laboratory work: to assess the ability of students to understand and perform small laboratory experiments.
2. Oral exam to assess understanding and intellectual skills.
3. Practical exam to assess practical skills.
4. Final exam to assess knowledge and intellectual skills.
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| 6. ASSESSMENT SCHEDULE |
| No | AssessmentAssessment | **Week** |
| 1 | Periodical exam  |  |
| 2 | Practical exam |  |
| 3 | Oral exam |  |
| 4 | Final exam |  |

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| 7. WEIGHING OF ASSESSMENT |
| No | AssessmentAssessment | **%** |
| 1 | Periodical exam  | 15% |
| 2 | Practical exam | 15% |
| 3 | Oral exam | 10 % |
| 4 | Final exam | 60 % |
| TOTAL | 100 % |

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| 8. LIST OF REFERENCES |
| 1. **Holmgren, D. 2002.** Permaculture: Principles and pathways beyond sustainability. Holmgren design services, book Depository Services, Guernsey, UK.

<http://books.google.de/books?id=RwV6cgAACAAJ&dq=Permaculture:+Principles+and+pathways+beyond+sustainability&hl=en&sa=X&ei=1Dv3UuLCKonDtAb7lIHwCQ&ved=0CDcQ6AEwAA> 1. **Martin, J.H., Leonard, W.H. and Stamp, D.L. 1976**. Principles of field crop production. McMillan Publishing. Co., NY, USA.

<http://books.google.de/books?id=zS0hAQAAMAAJ&q=Principles+of+field+crop+production&dq=Principles+of+field+crop+production&hl=en&sa=X&ei=8zv3UqyBPIKFtAav3YGgDw&ved=0CC4Q6AEwAA>  |

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| 9. FACILITIES REQUIRED FOR TEACHING AND LEARNING |
| 1. Teaching aids/materials: e.g. boards – overhead projector – data-show projector – stationary.. etc.
2. Teaching room/hall.
3. Computers.
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| **Course Coordinators:**  | **Prof. Dr. Sedhom Asaad Sedhom** |
| **Date: 8/ 11/ 2015** |