**ATTACHMENT 5.**

# Kingdom of Saudi Arabia

# The National Commission for Academic Accreditation & Assessment

# T6. Course Specifications (CS)

# Course Specifications

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|---|---|
| Institution King Saud university | Date 9 june 2016 |
| College/Department Botany and Microbiology | |

A. Course Identification and General Information

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|---|---|---|---|
| 1. Course title and code: : Bot 358 Plant Molecular Genetics | | | |
| 2. Credit hours (2 ( 1 + 1 ) | | | |
| 3. Program(s) in which the course is offered.<br>(If general elective available in many programs indicate this rather than list programs) | | | |
| 4. Name of faculty member responsible for the course | | | |
| 5. Level/year at which this course is offered eighth level | | | |
| 6. Pre-requisites for this course (if any) : Bot 251& Bot 253 | | | |
| 7. Co-requisites for this course (if any) | | | |
| 8. Location if not on main campus | | | |
| 9. Mode of Instruction (mark all that apply) | | | |
| a. traditional classroom | | What percentage? | 20 |
| b. blended (traditional and online) | | What percentage? | 20 |
| c. e-learning | | What percentage? | 40 |
| d. correspondence | | What percentage? | |
| f. other | | What percentage? | 20 |
| Comments: | | | |

B Objectives

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| 1. What is the main purpose for this course?<br>**Gene chemistry (DNA & RNA). Gene expression (Transcription and translation) and genetic code. Gene organization. Control of gene expression. Recombination of Genetic material** |
| 2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)<br>Usage of the net to see and to find new books and references. To look for video animation . |

C. Course Description (Note: General description in the form used in Bulletin or handbook)

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| Course Description:<br>(Note: General description in the form to be used for the Bulletin or Handbook should be attached) |

| 1. Topics to be Covered | | |
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| List of Topics | No. of Weeks | Contact hours |
| Introduction to Gene chemistry(DNA & RNA). | 1 | 1 |
| Gene expression | 2 | 2 |
| Transcription and translation) and genetic code | 3 | 3 |
| Gene organization | 3 | 3 |
| Control of gene expression | 1 | 1 |
| Recombination of Genetic material | 4 | 4 |
| ** Practical session | 14 | 28 |

2. Course components (total contact hours and credits per semester):

| | Lecture | Tutorial | Laboratory or Studio | Practical | Other: | Total |
|---|---|---|---|---|---|---|
| Contact Hours | 14 | | | 14(28h)pract. | | |
| Credit | | | | | | |

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| 3. Additional private study/learning hours expected for students per week. |

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

- *A brief summary of the knowledge or skill the course is intended to develop;*
- *A description of the teaching strategies to be used in the course to develop that knowledge or skill;*

The methods of student assessment to be used in the course to evaluate learning outcomes in

On the table below are the five NQF Learning Domains, numbered in the left column.

**First**, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

| Code # | NQF Learning Domains And Course Learning Outcomes | Course Teaching Strategies | Course Assessment Methods |
|---|---|---|---|
| **1.0** | **Knowledge** | | |
| 1.1 | The genetic material that take fore of the chromosomes have the force to control the characters to living organism . chromosome change that take place in some living organism lead to raise new characters and geratic diseases | Lectures.<br>Practical.<br>Books reference.<br>E-references | Practical and theorical tests<br>Practical reports . |
| 1.2 | | | |
| **2.0** | **Cognitive Skills** | | |
| 2.1 | How to collect plant sample for practical .<br>How to use microscope .<br>How to make slides and method of examing the sample .<br>• *How to Wright reports of practical test .* | Practical works.<br>Net usage to seek genetic teats and to look for video animation . | Grouped practical among student .<br>Discussion of metical reports |
| 2.2 | | | |
| **3.0** | **Interpersonal Skills & Responsibility** | | |
| 3.1 | Skills of grouped work | Practical project among students | Observation of students during the practical project.<br>*Discussion of the practical project.* |
| 3.2 | | | |
| **4.0** | **Communication, Information Technology, Numerical** | | |

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|---|---|---|---|
| 4.1 | *(i) Description of the skills to be developed in this domain.*<br>Research skill in intesnet for scientific pages in genetics and cytology and relight subject . weighting skill of practicals | Practical classes<br>Internet communication | Theoretical and practical examination |
| 4.2 | | | |
| **5.0** | **Psychomotor** | | |
| 5.1 | Not Applicable | Not Applicable | Not Applicable |
| 5.2 | | | |

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.)

| **Course LOs #** | **Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1.1** | **1.2** | | **2.1** | | **3.2** | | **4.1** | |
| **1.1** | | | | | | | | | |
| | | | | | | | | | |
| **2.1** | | | | | | | | | |
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6. Schedule of Assessment Tasks for Students During the Semester

| | Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.) | Week Due | Proportion of Total Assessment |
|---|---|---|---|
| 1 | Sessional examination | Night | 20 |
| 2 | Practical examination | Fourteen | 20 |
| 3 | Practical reports | | 10 |
| 4 | final theoretical examination | | 50 |
| 5 | | | |

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week) Office hours (4 weekly)

E Learning Resources

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| 1. List Required Textbooks<br>- |
| 2. List Essential References Materials (Journals, Reports, etc.)<br>- Cytogenetics , the chromosome in division , in heritance and evolution . 2nd. Ed. C.P.swanson , T.Mezzand W.J.young(1981) . Prentice – Hall , Inc |
| 3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)<br>Molecular Biology of the Gene<br>4th ed., The Benjamin/ Cumming Publishing, Menol Park, Calif.,1987<br>Schleif, R. Genetics and Molecular Biology (1985) Addison-Wesley |
| 4. List Electronic Materials, Web Sites, Facebook, Twitter, etc. |
| www.chsomosome.net<br>http://sciencehack.com/videos/catagsy/7 |
| http://yahoo.com- science ,biology |
| 5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. |

F. Facilities Required

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| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.) |
| 1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)<br>• *Lecture class equipped with a Data Show*<br>E-learning class for reviewing the course, internet communications and other numerical skills |
| 2. Computing resources (AV, data show, Smart Board, software, etc.) |
| 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) |

G Course Evaluation and Improvement Processes

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching<br>Student questionnaire to evaluate the course .<br>Discussion with students to develop the teaching |
| 2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department<br>Notices of department members and others institute memberes who has relation with.<br>Student evolution to be done by the department |
| 3 Processes for Improvement of Teaching |

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| Comparison of student results for many years back.<br>Comparison of student result with related courses<br>Developing teaching and teaching methods .<br>Upgrading stuff member form point e-teaching and educational and psychological background |
| 4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)<br>• *Comparisons and statistical analysis of the students degrees within and among groups*<br>• *Workshops and seminars with the students, colleagues and specialists*<br>Studying the reports of self assessment and the independent reviewers reports |
| 5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.<br>faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution |

Name of Instructor:
Signature: _____ Date Report Completed: _____

Name of Field Experience Teaching Staff _____

Program Coordinator:*MONA S. ALWAHIBI*

Signature: _____ Date Received: 6 June 2016