ATTACHMENT 2 (e)

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications
(CS)
Plant Diseases Caused by Nematodes
PLPT 325

Dr. Ahmad Saad Al-Hazmi

Course Specifications

Institution: King Saud University	Date of Report12/1/2017
College/Department: College of Food & Agriculture Sciences/Department of Plant Protection	

A. Course Identification and General Information

1. Course title and code: Plant Disease Caused by Nematodes [PLPT 325]

2. Credit hours: 3 (2 Lectures + 1 Practical)

3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
This is a compulsory course offered to students majoring in Plant Protection.

4. Name of faculty member responsible for the course
Prof. Ahmad S. Al-Hazmi

5. Level/year at which this course is offered 6th level / 3rd year

6. Pre-requisites for this course (if any)
PLPT 221 (Principles of Plant Pathology)

7. Co-requisites for this course (if any)
None

8. Location if not on main campus
None

9. Mode of Instruction (mark all that apply)

a. Traditional classroom	√	What percentage?	**65**
b. Blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. Correspondence		What percentage?	
f. Other- Experimental learning	√	What percentage?	**35**

Comments:

B Objectives

1. What is the main purpose for this course? Students are expected to learn: - Some details of nematode morphology and anatomy. - Some biological functions and brief taxonomy of nematodes. - Symptoms and plant diseases caused by plant- parasitic nematodes. - Ecology and control of plant- parasitic nematodes.
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) - Use all important and recent learning materials (Software…etc.) - Use of good quality illustrations. - Use of major practical components of the course. - Us of a text book designed and developed specially for this course. -

C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Introduction and history of plant nematology	1	2
Major structures of the nematode body	3	6
Some biological functions of nematodes	1	2
Taxonomy and grouping of plant- parasitic nematodes	1	2
Mechanisms of disease and disease symptoms	2	4
Diseases of roots and aerial parts of plants	3	6
Nematode ecology and interactions	2	4
Methods of nematode control	2	4

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30 hrs.			30 hrs.		
Credit	2			1		

3. Additional private study/learning hours expected for students per week. **2 hrs.**
Reports of the practical learning

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

Course Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning, assessment, and teaching.

The ***National Qualification Framework*** provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

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. **Fourth**, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Brief studies of nematode morphology and anatomy, with emphasis on plant-parasitic nematodes and their taxonomic characters. Some biological functions (Feeding, reproduction …).Nematodes as plant parasites or pathogens of plants. Host response and symptoms. Relationships of nematodes with the environment, and other organisms. Detailed studies of the most plant-parasitic nematodes, and the plant diseases or injuries they cause. Control of plant-parasitic nematodes.	• In class lectures, with relation to past knowledge. • Discussions, reviews and comments. • Home works, and special readings. • Lab. works, and small experiments.	• Periodical tests and quizzes. • Evaluation of lab. works and assignments.
2.0	**Cognitive Skills**		
2.1	• Knowledge of nematode morphology and anatomy, and use of this knowlege in nematode identification. • Plant diseases or injuries caused by nematodes and their control.	• In class discussion, reviews and comments. • Home works and special readings. • Self independence in lab. works.	• Discussion and comments of students. • Brief and quick quizzes. • Periodical class and lab. tests.
3.0	**Interpersonal Skills & Responsibility**		
3.1	• Lab. works as individuals or groups. • In class discussions of lab. works and small experiments. • Home works for individuals or groups.	• Lab. small experiments conducted by groups. • Writing and discussion of results of these experiments.	• Evaluation of group and individual experiments. • Evaluation of group and individual reports and discussions.
4.0	**Communication, Information Technology, Numerical**		
4.1	• Data recording of lab. experiments. • Statistical analysis of the experiment data. • Use of computers in reporting and presentation of the experiments.	• Writing laboratory's reports. • Use of computers in handling and discussing their reports.	• Evaluation of students' reports. • Evaluation of students' presentations in class.
5.0	**Psychomotor**		
5.1	• Abilities to use tools and equipments very efficiently.	• Training each individual to use tools and equipments in the lab. very safety and efficiently.	• Evaluation of how each individual student is using and handling tools and equipments.

Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
Cognitive Skills	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize
Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct

Suggested ***verbs not to use*** when writing measurable and assessable learning outcomes are as follows:

Consider	Maximize	Continue	Review	Ensure	Enlarge	Understand
Maintain	Reflect	Examine	Strengthen	Explore	Encourage	Deepen

Some of these verbs can be used if tied to specific actions or quantification.

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

5. 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	First lecture exam (include quizzes).	7	15
2	Second lecture exam (include quizzes).	13	15
3	First practical exam (include reports).	8	15
4	Second practical exam (include reports).	15	15
5	Final lecture exam.	16	40

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) - Instructor office hrs. : 8 hrs. / weeks - Lab., and lab. technicians are available all day. E mail: asalhazmi@ksu.edu.sa Office number: 467-8433 Mobile: 0503233756

E. Learning Resources

1. List Required Textbooks Al-Hazmi, A. S. 2009. Introduction to Plant Nematology (2nd edition). King Saud University Press.
2. List Essential References Materials (Journals, Reports, etc.) • Hussein, A. H. 2001. Nematode Plant Disease Al-Ahram Press. Egypt. • Recommended books and references material (Journals, Reports, etc) (Attach List). • Recommended books and references are listed in the required textbook.
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) • Perry, r. and M. Moens (eds.) 2006. Plant Nematology. • Journal of Nematology.
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.) • Important and related web sites are provided to students as different subjects when are discussed.
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. • Films, C.D.s and documentary films are used whenever needed.

F. Facilities Required

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.) • Lecture room, caps. 20-30 seats. • Teaching laboratory, caps. 20-30 students. • Small greenhouse.
2. Computing resources (AV, data show, Smart Board, software, etc.) • Whenever needed, use of computer facilities in the department or the college.
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) • All needed tools and equipments are available in our teaching or research lab.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching • Evaluation of teaching by students. • Discussion with students about positive and negative teaching aspects.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor • Discussion with colleagues within the department. • Discussion during the departmental periodical meetings.
3 Processes for Improvement of Teaching • Periodical reviews of offered materials. • New edition of the required textbook. • Periodic review of the course by the academic planning committee in the department.
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) • Periodic teaching exchange with another colleague.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- Periodic review of the course by the academic planning committee in the department.
- Periodic review and improvement of scientific materials, and effectiveness of teaching.

Faculty or Teaching Staff: Prof. Ahmad S. Al-Hazmi

Signature: _____ **Date Report Completed: 7/5/2014**

Received by: _____ **Dean/Department Head**

Signature: _____ **Date: _____**