Course Specification

Name of Institution : Buriram Rajabhat University
Faculty / Programme : Faculty of Science Biology Program

Section 1

Overview

1.	**Subject:** Genetics **Subject code:** 4032401
2.	**Credit:** 3(2-2-5)
3.	**Course** **Program of the course:** Bachelor degree **Course Category:** Required subject
4.	**Instructor**: Miss Sirinee Jirajessada
5.	**Semester / Year of study** **Semester:** 2/2019 **Student:** Bachelor Degree in Biology (61/M.1 =35 students on Friday 1.00-4.20 PM)
6.	**Pre-requisite** None
7.	**Co-requisite** None
8.	**Teaching venue:** Room 12402 Faculty of Sciences
9.	**Date of course preparation:** May 5, 2019

Section 2

Actual Teaching Hours Compared with Teaching Hours Specified in the Teaching Plan

1. The report of actual teaching hours compared with the teaching plan

Topics	No. of Teaching Hours in the Plan	No. of Actual Teaching Hours	Reason(s) (in case the discrepancy is more than 25%)
- Classroom commitment - Introduction - History of genetics **LAB :** -lap agreement and equipments - Characteristics of fruit fly (*Drosophila melanogaster*)	4	4	-
- Mendel's laws of inheritance - Law of gene segregation **LAB :** monohybrid cross of fruit fly lab (*D. melanogaster*) (chart diagram)	4	4	-
- Mendel's laws of inheritance - Law of independent assortment **LAB :** dihybrid cross of fruit fly lab (*D. melanogaster*) (Chart diagram)	4	4	-
- Genetic material - discovery - component and function - Gene - Chromosome - Sex determination **LAB :** Human karyotype	4	4	-
- Non Mendelian genetics - Codominant - Incomplete dominant - Sex limited traits **LAB :** Human blood type	4	4	-
- Non Mendelian genetics (cont.) - Epistasis Lethal gene - Non chromosomal inheritance - Maternal effect **LAB :** Model of maternal inheritance in *Lymnaea peragra*	4	4	-

- Non Mendelian genetics (cont.) - Sex influent traits - Multiple alleles **LAB :** sex chromatin	4	4	-
- Linkage and recombination - Quantitative genetics **LAB** : qualitative genetics test in genetic experiment	4	-	Staffs sport day at UDRU. Made up class in 23rd Dec. 2019
- Reproduction **LAB**: Mitosis and meiosis	4	4	-
- Probability and statistical analysis - addition law - multiplication law **LAB** : Chi-square test in genetic experiment	4	4	-
- Gene expression - Regulation of the gene expression - **LAB :** - operon model	4	4	-
- mutation - **LAB :** Pedigree analysis of genetic disease	4	4	-
- Population genetics **LAB :** Population genetics.	4	4	-
- Evolution genetics **LAB:** phylogenetics	4	4	-
Genetic engineering **LAB**: dna cloning model	4	4	-
- Course summary	4	4	-

2. Topics that couldn't be taught as planned

Topics that couldn't be taught (if any)	Significance of the topics that couldn't be taught	Compensation
None	None	None

3. Effectiveness of the teaching methods specified in the Course Specification

Learning Outcomes	Teaching methods specified in the course specification	Effectiveness (Use ✓)		Problems of the teaching method(s) (if any) and suggestions
		Yes	No	
Morals and Ethics	1. Lecturer being a good role model to student. 2. Assign group topic of discussion. 3. Discussion on the students' value & morality, such as, punctuality, discipline, honesty, responsibility for their own professional and social, tolerance, realistic, positive attitude towards the profession, and respect the rights and opinions of others. 4. Make an agreement with students about the rules and practices in teaching. 5. Student center teaching approach.	✓ ✓ ✓ ✓ ✓		
Knowledge	1. Lecture 2. Assignment 3. Discussion	✓ ✓ ✓		
Cognitive Skills	1. Discussion	✓		

	2. Classroom activities 3. Assignment	✓ ✓		
Interpersonal Skills and Responsibilities	1. Activities 2. Assignment 3. Problem solving	✓ ✓ ✓		
Numerical Analysis, Communication and Information Technology Skills	1. Use the computer to search information and present the obtained information in class. 2. Communication and send homework via e-mail	✓ ✓		
4. Suggestions for Improving Teaching Methods Lecturer use mind mapping method for students to get the whole idea of different topics. Encourage students to ask questions with group discussion beforehand.				

Section 3

Course Outcomes

1. Number of registered students: 35 (Section 1 =35 students)

2. Number of students at the end of semester: 35

3. Number of students who withdraw: 0

4. Grade distribution

Grade	No. of Students	Percentage
A	4	11.43
B+	5	14.29
B	6	17.14
C+	15	42.85
C	5	14.29
D+	-	-
D	-	-
F	-	-
Incomplete (I)	-	-

5. Factors causing unusual distribution of grades (If any)

None

6. Discrepancies in the evaluation plan specified in the Course Specification

6.1 Discrepancy in evaluation time frame

Details of Discrepancy	Reasons
None	None

6.2 Discrepancy in evaluation methods

Details of Discrepancy	Reasons
None	None

7. Verification of students' achievements

Verification Method(s)	Verification Result(S)
Students' achievements were verified by 1) lecturer of the subject by using behavior in class, attention and examination score. 2) By curriculum board analysing TQF 3, TQF 5, test papers and self evaluation achievement form from students. Report this to curriculum board.	Verification was done within April 30th 2020. The self evaluation achievement from student = ... in the range = ...

Section 4

Problems and Impacts

1. Teaching and learning resources

Problems from teaching and learning resources	Impacts on students' learning
Genetics is a difficult subject and student had hard time to understand 100% in English.	Teacher arranged to meet student at free time for extra teaching using Thai.

2. Administration and organization

Problems from administration	Impacts on students' learning
Room 12402 is temporary a microscope room.	Should transfer students to room 12401 or other room.

Section 5
Course Evaluation

1. Results of course evaluation by students
1.1 Important comments from evaluation by students From student evaluation, the score is ..... which is in the range .....
1.2 Lecturer response/option on the comments in 1.1 None
2. Results of course evaluation by other evaluation methods
2.1 Important comments from evaluation by other evaluation methods None
2.2 Lecturer response/option on the comments in 2.1 None

Section 6
Improvement Plan

1. Progress of teaching and learning improvement recommended in the previous Course Report	
Improvement plan proposed in semester/academic year	**Results of the plan implementation (In case no action was taken nor completed, reasons must be provided.)**
Do the course preparation consider the fact the student should complete the 5 domains of learning.	Lecturer had many approach to teach students. And the medias to tech was appropriate. Students appreciated in learning plan.

2. Other improvements

Arrange teachers meeting discussing the pros and cons and teaching last year, this year teaching plan for next year.

3. Suggestions for improvement for semester 2, academic year 2020

Suggestions	Time Frame	Responsible Person
1. Prepare hand outs and books for students. 2. Prepare the lab samples, chemical reagents and equipment.	Two weeks before the class.	Miss Sirinee Jirajessada

4. Suggestion of course lecturer

None

Course Lecturer

Signature .....

Submission Date .....