المركز الوطني للتقويم والاعتماد الاكاديمي
National Center for Academic Accreditation and Evaluation

ATTACHMENT 5.

T6. COURSE SPECIFICATIONS (CS)

هيئة تقويم التعليم
Education Evaluation Commission

Course Specifications

Institution: **Tabuk University**	Date: ٢٠١٩/٤/١٨
College/Department : **Science / Physics**	

A. Course Identification and General Information

1. Course title and code: **Classical mechanics (PHYS 525)**
2. Credit hours:٣
3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
Bachelor of Science (Physics)
4. Name of faculty member responsible for the course: **Dr. Shams Issa**
5. Level/year at which this course is offered: **(8)**
6. Pre-requisites for this course (if any): **(PHYS 201)**
7. Co-requisites for this course (if any): N/A
8. Location if not on main campus: N/A
9. Mode of Instruction (mark all that apply):

a. traditional classroom	X	What percentage?	100 %
b. blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. correspondence		What percentage?	
f. other		What percentage?	

Comments:

B Objectives

1. What is the main purpose for this course?
-Provides students with the essential knowledge and understanding of the fundamental principles of classical mechanical.
-Ensure that students can classify semiconductors according to their conductivity and type of doping and understand their structure, and there effect on the physical properties of classical mechanical.
-Getting knowledge about the importance of classical mechanical and their applications in electronic devices.
-To encourage students to read and appreciate the current literature in the area of classical mechanical

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)
-Post the course material on the website that could be accessed by students after registration.

-Utilizing various internet resources that offer informative details to support the lecture course material.

-Tutorial, reading assignments and relevant research papers using university online library will be considered to enrich the scope of the course.

-Increasing the use of IT or web-based reference material
-Working on updating the objectives of the course and the scientific content as required

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

Course Description:

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Newton's Laws and Dynamics in One Dimension	1	3
Oscillations	1	3
Dynamics in Two-Three Dimension	1	3
Non-Inertial Frame	2	6
Gravity	1	3
Damped , Force Oscillations and Resonances	1	3
Review	2	6

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

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	Planed	3					42
	Actual	3					
Credit	Planed						
	Actual						

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

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	Explore the basic principles of classical mechanical.	Introductory lecture about the significant of the course and the topics to be covered	Class work including short quizzes (5%) Student's participation, homework assigned questions, and evaluation (5%) Two midterm tests (25% each) Final examination (40%).
1.2	Explore the theoretical basis of physical properties of classical mechanical.		
1.3	Classify semiconductors according to its doping and structure.	Learn to use the library in the self-learning fashion	
1.4	acquire basic understanding of the physical properties of different classical mechanical		
2.0	**Cognitive Skills**		
2.1	Solve problems	Encourage students to use computer technology and internet to get access to the course material.	Individual home work problems and assignment tasks - Group and individual assignment tasks
2.2	Using discussion, Lessons, examples and illustrations to demonstrate the difference among topics		

2.3	Improve scientific English of students	Communicate and make discussions with students in English language. Encouraging group discussion related to the subject matter.	Students are encouraged to understand problems rather than just memorizing various problems type.
3.0	**Interpersonal Skills & Responsibility**		
3.1	Directing the student to self-learning and greater knowledge in the field of course -Tutorial Classes.	Solving problems in groups during tutorial	Quizzes and exams
3.2	Encourage students to think critically and involve in discussions with the instructor in classroom.	Give students projects on topics related to the subject	
3.3	Oral presentations on related topics will be held in class weekly	Give students critical thinking questions	Grading homework assignments
3.4	Work independently and as part of a team.	Encouraging students to communicate among themselves under instructor guidance.	Regular attendance
4.0	**Communication, Information Technology, Numerical**		
4.1	Develop the scientific language skills	To use computer technology to get access to the course material.	Marks for student's presentation using power point
4.2	Develop communication skills with others via websites or e-mail	Using simple language while conducting lessons	Giving students practical skills necessary to implement the laboratory activities.
4.3	Using online library and internet in searching for literature paper related to the subject	Using technical words while teaching so that students can get acquainted with scientific	Giving students the ability to choose, describe, and find differences, and understanding of the scientific terms and the link between theoretical and applied knowledge.
4.4	Communicate with other students as well as other faculty members.	Equipped Teaching rooms and laboratories with educative tools (illustrative pictures, photos ...)	
5.0	**Psychomotor**		
5.1	**Not applicable**		
5.2			

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Effective participation in class room, attendance, Participation and Homework	All the semester	5%
2	Quizzes	All the semester	5%
3	1st exam	7	25%
4	2nd Exam	11	25%
5	Final exam	14	40%
6	total		100%

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) - Students can approach during the office hours for the faculty member to ask questions to clarify some points missed during the lecture. - Students can communicate with the teaching staff through the website and ask questions related to all aspects of the lesson. The students will get written answers as soon as possible, The teaching staff are available during all the day in the faculty and are ready to clarify any points related to the course. - The teaching staff are available during all the day, where they are ready toclarify any points related to the course.

E Learning Resources

1. List Required Textbooks Lecture Notes prepared by the instructor
2. List Essential References Materials (Journals, Reports, etc.) **Semiconductor Physics, Petr Semenovič Kireev, Mir publisher, Rusia**
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc. **http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html** 5- Other learning material such as computer-based programs/CD, professional standards/regulations
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

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.) - **Classrooms ready and equipped with educational media**
2. Technology resources (AV, data show, Smart Board, software, etc.) - **Data show and internet.** - **Computer and microphone in Lecture rooms**
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching • Regular evaluation of the course to identify the weaknesses areas • Performance appraisal form filled up by each student to show level of fulfilment • Confidential completion of standard course evaluation questionnaire
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department • A statistical regular review and analysis of the students' achievement in the department. • Prepare a questionnaire which should be filled by the students at the end of the term. • The questionnaire should be after that analyzed and carefully studied.
3. Processes for Improvement of Teaching • **Provide training and workshop opportunities for the teaching staff to improve their teaching strategies.** • **Form committees to follow up progress and work on improvement.** • **Provide opportunities to improve academic courses and research through conferences.** • **Provide the teaching staff members with all the references and electronic resources.** • **Updating through more reading books and articles related to the course** • **Improve relations between instructor and students**
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) • **Check marking of the answer sheets of examination papers with other colleagues** • **Check progress level of the students (this can be done by an independent teacher by reviewing students' records and compare the students' work with another from a different institute).**
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- **Student's feedback on the quality of the course.**
- **Consulting other faculty members or collaborators in overseas universities for their views on the method of quality of improvement**
- **Check other universities web sites to compare our lectures with them**
- **Compare the syllabus with the syllabus of standard universities.**
- **Form a specialized committee from the department to review the progress of teaching and update the resources**
- **Consult distinguished students and discuss with them positive and negative points in Lectures.**

Name of Course Instructor: Dr. Shams Issa

Signature: ____shams_____ Date Specification Completed: 18/4/2019

Program Coordinator: Dr. Fahad Alharbi
Signature: *Dr. Fahad Alharbi* Date Received: 19/4/2019