



Prince Sultan University
College : DES
Second Semester 2017 - 2018

INSTITUTIONAL COURSE SYLLABUS TEMPLATE

Course Code: MATH 002	Course Title: Orientation Mathematics II
Course Instructor: Various	Email: Various
Credit Hours: 4	Course Location: Various
Scheduled Office Hours:	
Office Location: E - 334	

Mission Statement:

The Department of General Sciences is committed to offering a broad high quality education that will lay a durable educational foundation to meet the specialized professional development requirements in PSU degree programs. The department supports the development of student's skills that enables them to perceive patterns in complexity, render reasoned judgments, and seek the highest level of intellectual achievement and personal growth. We also encourage the students to develop personal qualities such as perseverance, initiative, self-confidence and independence.

I. Course Description:

This course is designed to improve the student's computational skills in basic Algebra, and to demonstrate his writing ability in Mathematics with logical steps.

II. Course Learning Outcomes:

Skills	Course Learning Outcomes	Measured by
Knowledge	Recognize and evaluate trigonometric functions, solve equations, illustrate applications and prove trig identities.	Quizzes Major Exams Final Examination
Cognitive Skills	<ol style="list-style-type: none"> 1. Evaluate exponential and logarithmic functions, graph their equations, and construct their applications. 2. Solve systems of equations and inequalities using algebraic techniques including matrices and determinants. 	Quizzes Major Exams Final Examination
Interpersonal Skills & Responsibility		
Communication, Information Technology, Numerical	Identify different conic sections, state their equations and graph them.	Quizzes Major Exams Final Examination

III. Tentative Weekly Course Schedule:

Week	Date	Topics	Contact Hours
1	Jan 21 – 25	Introduction 4.1 Exponential functions Exponents 4.2 Logarithmic functions	4
2	Jan 28 – Feb 01	4.3 Properties of logarithms 4.4 Exponential and Logarithmic Equations	4
3	Feb 04 – 08	5.1 Angles and their measure 5.2 Right triangle trigonometry	4
4	Feb 11 – 15	5.3 Trigonometric functions of any angle	4
5	Feb 18 – 22	5.3 Trigonometric functions of any angle 5.4 Trigonometric functions of real numbers	4
6	Feb 25 – March 01	5.5 Graphs of sine and cosine functions	4
Major I Exam Wednesday 28 February (Ch. 4.1 -- 5.4)			
7	March 04 – 08	5.7 Inverse trigonometric functions	4
8	March 11 – 15	5.7 Inverse trigonometric functions 6.1 Verifying Trigonometric Identities	4

9	March 18 – 22	6.2 Sum and Difference Formulas 6.5 Trigonometric Equations	4
Thursday - March 22, Last day for dropping one or more courses with grade of "W"			
10	March 25 – 29	8.1 Systems of linear equations in two variables 8.2 Systems of linear equations in three variables	4
11	April 01 – 05	8.5 Systems of inequalities 9.1 Matrix solutions of linear systems	4
12	April 08 – 12	9.2 Inconsistent and dependent systems 9.3 Matrix operations and applications	4
Major II Exam Wednesday 11 April (Ch. 5.5 – 9.2)			
13	April 15 – 19	9.4 Matrix inverses and matrix equations 9.5 Determinants and Cramer's Rule	4
14	April 22 – 26	10.1 The Ellipse 10.2 The hyperbola	4
15	April 29 – May 03	10.2 The hyperbola 10.3 The Parabola	4
	May 05 -- 15	Final Examinations	

Omitted Objectives (Topics)							
Section	Objectives		Section	Objectives		Section	Objectives
4.1	4		8.1	5		9.4	3
5.1	8		8.5	3			
5.5	6					10.1	4
			9.2	3		10.2	5
6.2	3		9.3	7		10.3	4

IV. Course Components

Component	Contact Hours
Lecture	60
Tutorial	15
Practical/Field	

V. Student Assessment & Teaching Strategies: Assessment Task
 Teaching Strategies:

Domain	Strategy
Knowledge	Lectures, Discussions, Examples & Tutorials
Cognitive Skills	Lectures, Discussions, Examples & Tutorials
Interpersonal Skills & Responsibility	N/A
Numerical & Communication Skills	Lectures, Discussions, Examples & Tutorials

VI. Course Requirements

Quizzes, Major Exams, Homework, and Final Exam

VII. Student Assessment

A. Assessment Task

Domain	Assessment Task
Knowledge	Quizzes, Major Exams, Homework, and Final Exam
Cognitive Skills	Quizzes, Major Exams, Homework, and Final Exam
Interpersonal Skills & Responsibility	N/A
Numerical & Communication Skills	Quizzes, Major Exams, Homework, and Final Exam

B. Schedule of Assessment

Assessment	Assessment Task	Week Due	Proportion of Final Assessment
1	Quizzes	Weekly	10%
2	Major Exams	Week 6 Week 12	40%
3	Online Homework	As per published deadlines	5%
4	Attendance and Participation	Daily	5%
5	Final Examination	05 May, 2018	40%

VIII. Learning Resources

A. References

Required Textbook:

Algebra and Trigonometry, Fifth Edition; Robert Blitzer; Prentice Hall, 2014.

Recommended Textbooks:

1. **College Algebra and Trigonometry, 7th edition**
By Richard N. Aufmann, Vernon C. Barker, and Richard D. Nation
2. **College Algebra with Trigonometry, 9th edition**
By Raymond A. Barnett, Michael R. Ziegler, Karl E. Byleen, Dave Sobecki

Electronic Materials, Web Sites

MyMathLab Code for Online Homework. Access to University LMS

B. Facilities Required

- a. **Classrooms with capacity of 30 students**
- b. **Whiteboard**
- c. **Data show projector and screen**
- d. **Smart board and online course.**

C. Learning Management System

LMS is efficiently used. All solutions to quizzes and Major Exams, Lecture Notes and Important instructions can be found on the university LMS at <https://lms.psu.edu.sa/>

IX Classroom Policies

A. Academic Integrity Policy (e.g. plagiarism or dishonesty)

Plagiarism can be defined as unintentionally or deliberately using another person's writing or ideas as though they are one's own. Plagiarism includes, but is not limited to, copying another individual's work and taking credit for it, paraphrasing information from a source without proper documentation, and mixing one's own words with those of another author without attribution. In addition, buying a paper or project, or downloading a paper from the Internet, and submitting them as your own are also plagiarism. The penalty for academic dishonesty will bring course expulsion and failure, or even suspension.

B. Attendance Policy

- Students are required to attend all classes starting from **the first day of the semester**.
- Attendance will be taken at the start of the lecture. If the student enters the classroom **after 10 minutes**, he will be marked absent.
- **2.5 points** will be assigned to the attendance. **Half a point will be deducted** from the student's total grade for every one absence **after** missing 4 classes.
- “**DN Grade**” will be issued to a student who **misses 16 classes**. This means he cannot enter any more classes or exams. (**1st warning: 6 absence ; 2nd warning: 11 absences**)

C. Homework Submission Policy

- There is an online tool "**MyMathLab**" which is a very helpful tool that should improve your performance in the course with all the helping features available. Your instructor will give you all the details about registering and using it.
- **Online Homework** will be given during the term. A deadline for submitting each homework will be determined by your instructor. **5 points** will be assigned to the Homework.
- To access the Online homework you will need an Access Code. You can purchase it from Al-Shigrey Bookstore or online from Pearson. You can register with a temporary account for 14 days (**only once**) after which you must convert it to a permanent account.
- It is the **sole responsibility** of the student to ensure that he has purchased the Access Code and completed the homeworks before the stated deadlines.
- Please note that after the deadlines have passed, homeworks **will not** be opened for any reason whatsoever.

Math Department Website:

- A student can visit “The Math Department Page” through the “Math and General Sciences” Website (**info.psu.edu.sa/psu/math**s) where he can find several helping information such as the syllabi for all math courses, useful links to help the student in his study, and a huge collection of the previous midterm and final exams that were administered by the Department through the previous semesters.

Calculators:

- Only Scientific Calculators are allowed in this course (No Graphing Calculators). We recommend **Casio fx-991ES**

Office Hours:

- You are advised and encouraged to seek help to clarify matters that are not clear to you as soon as possible.
- Check the table posted on your instructor's door for the office hours in case you need assistance or you need to inquire about matters concerning your marks, absence, and so on. If you need to see him at a different time, arrange with him in advance.

Participation

- **2.5 points** will be assigned to Class Participation.
- **Points** will be assigned to the active participation such as asking questions, solving examples, being attentive and attending office hours
- Points will be also assigned to the student's readiness in class (having pens and notebook), and for taking good notes. Points may be deducted for using mobiles in the classroom.
- The Department offers an Extra class on **Thursdays**. This class is used to solve some homework problems, previous exams, and offer extra help. All students are recommended and required to attend these tutorial classes.

Make-up for Quizzes and Exams

- If you are absent or late, then you will get a **zero** for the quiz. There are no make-up quizzes.
- If you miss an exam due to a severe medical emergency the department may offer you a make-up exam provided you bring a **valid medical excuse from a governmental hospital** within **one-week** of the exam. **After one week no excuses will be accepted and no make-up exam will be offered.**

SECTION	PAGE	PRACTICE PROBLEMS			
		Exercises	Practice Plus	Application	Critical Thinking
4.1	420	5,9,13,17,27,29,35,39,45,49,51	59,61	65,67,73	91
4.2	434	5,11,19,21,29,35,41,43,49,55,59,73, 77,79,83,89,91,99	101,107, 111	113,119	143,144
4.3	445	7,11,15,23,27,33,35,39,47,53,59,65,67,69,73	83,87,95, 99	---	127,129, 131
4.4	456	5,13,15,19,23,31,35,37,41,45,47,55,61,69,71, 73,77,81,89	91,99	101,115	139,140
5.1	494	9,17,19,25,31,37,43,47,53,55,61,65,73	77,85	89,95	122
5.2	509	7,11,15,17,19,21,29,37,43,47,51,53,55,61	65,69,71	73,75,79	99,100
5.3	525	5,9,13,19,25,27,31,35,39,41,45,51,57, 61,65,69,73,77,85	89,91,93 103	---	---
5.4	532	3,7,11,17,19,23,25,29	37,41	43	59
5.5	554	5,9,13,21,25,29,39,41,47,51,55,59	61,65,69	85	115
5.7	584	5,9,21,25,29,33,39,41,49,53,59,61,67,69,71	85,89	95	120
6.1	614	1,7,9,11,17,19,27,33,37,45,49,51,55,59	69,71	---	92,93
6.2	623	1,3,5,7,9,13,15,19,25,33,39,41,45,57,59,61	73,74	---	99,101
6.5	656	7,19,23,25,35,37,39,47,59,65,71,77,83,93,99 105,113	123,125		
8.1	758	3,7,15,19,27,33,37,41,43	47,51	77,78	---
8.2	769	3,7,11,15,21	25,27	39	---
8.5	803	3,7,15,17,27,33,41,47,51,57,59,61	65,75	---	111,112
9.1	830	1,5,9,15,21,23,31,35,37,41	39,41	45	---
9.2	840	1,5,7,11,15,21,23	---	---	41
9.3	854	3,7,15,19,25,27,31,35,39,43	47	---	---
9.4	869	1,5,9,11,17,19,23,27,31,35,37,39,41	43,47	---	87,90,91
9.5	882	1,5,13,17,21,25,29,31,33,37,39,41,43	45,47,51	53,55,57	75
10.1	899	1,17,23,25,27,29,31,33,35,39,41,43,45,49,51, 53,55	57,61	65	85,86
10.2	913	3,5,7,11,17,23,29,33,37,41,43,45,47	51,57	63	87,89
10.3	925	5,9,13,15,19,23,27,35,39,43,47	53,59	67	83