جامعة: المنصورة

كلية: العلوم

قسم: الرياضيات

		١- بيانات المقرر
المستوى: الثانى	اسم المقرر : Solid Analytic Geometry	كود المادة : Math 218
ارین: ۲ عملی: ۰	عدد الوحدات الدراسية: ٣ ساعة معتمدة نظرى ٢: ته	التخصص: رياضيات

For students undertaking this course, the aims are to:	٢- هدف المقرر:
1- discuss and study the basic geometric properties and equations of straight lines , planes and spheres in three dimension and central quadrics in this way.	
	ا "- المستهدف من تدريس المقرر
a- Knowledge and Understanding	أ- المعلومات و المفاهيم:
On completing the course students will be able to:	
a1 - provide a breadth of geometrical experiences in 3 dimensions	
a2- develop knowledge and understanding of basic concepts of the geometry of some curves and surfaces 3 dimensions	
a3- develop the students knowledge and the basic geometric properties about surfaces in three dimension	
b- Intellectual Skills:	ب- المهارات الذهنية:
On completing the course students will be able to:	
b1- be familiar with some curves and surfaces in space and be able to work with them	
b2- Apply transformations to find and simplify the equations of quadratic surfaces .	
b3- develop logical thinking coordinates.	
c-Professional and Practical Skills	ج- المهارات المهنية الخاصة بالمقرر:
On completing the course students will be able to:	بالمقرر:
c1- Use Geometry to illustrate the algebraic concepts	
c2 - Apply geometrical basis through modeling and solving real problems	

c3 - Handing-in of homework and attendance at tutorials described in Handing-in of	
homework and attendance at tutorials described in 3- the second Year	
Handbook	
c4- Use computer (maple software) to draw some geometrical curves and surfaces	
and study their properties	
d-General and Transferable Skills :	د- المهارات العامة:
On completing the course students will be able to:	
d1- Use Internet and Library to get information	
d3- Work effectively both in a team, and independently on solve problems	
d2- be able to solve simple problems in 2, 3 - dimensional spaces	
1- Rectangular , spherical and cylindrical coordinates	
2- straight line in space	
3- the plane	
4- surfaces in space (sphere-cone- cylinder) - some other quadric surfaces	
5- The general equation of the second degree in three variables	
1- 4 hour lecturer weekly with exercise sheets and solution sheets	٥- أساليب التعليم و التعلم:
2- Weekly 4 hour tutorials in groups	- (
3- Using Internet facilities	
The same as normal students, only skeletal disabilities are allowed in the faculty of	٦- أساليب التعليم و التعلم
science.	للطلاب ذوى القدرات
	المحدودة
	٧- تقويــــم الطــــــــــــــــــــــــــــــــــــ
1- Oral exam to assess a1,a2,b2,c2,d2,d3	أ- الأساليب المستخدمة
2- Final exam to assess a1,a2,b1,b2,c1,c2,d1,d2,d3	
3- Mid-Term Exam to assess a1,a2,b1,b2,c2,d2	
1- Oral week 16	ب- التوقيت
2- Final exam week 16	
3- Mid-Term Exam week 7	

- Mid-Term Examination 10 %	ج- توزيع الدرجات
- Final-Term Examination 80%	
- Oral Examination 10%	
- Practical Examination 0%	
- Semester work 0%	
- Other types of assessment 0%	
Total 100%	
اجع:	 ٨- قائمة الكتب الدراسية و المرا
- Department notes in analytic geometry in three dimension	أ- المذكرات
Coordinate geometry" (2-D,3-D) G.C. Sharma, New Delhi,2003.	ب- الكتب ملزمة
E. Swokowski, M. Olinick & D.Pence, (1994) "Calculus", 6th Edition, PWS Publishing Co	ج- كتب مقترحة
web.page:http://mathworld.wolfram.com	د- دوریات علمیه او نشرات

(أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسى

المحتويات للمقرر	اسبوع الدراسة	المعارف الرئيسية	مهارات ذهنیة	مهارات مهنیة	مهارات عامة
Analytic geometry II					
Rectangular , spherical and cylindrical coordinates	1-2	d1,d3	c1,c2		a1
Straight line in space	3-4	d2	c2,c3	b1	a2,a3
The plane and their equations	5-7	d3		b1	a2
Surfaces in space (sphere-cone-cylinder)	8-10	d2	c3,c4		a3
Some other quadric surfaces	11	d2,d3	c4,c5	b2	
The general equation of the second degree in three variables	12-13	d1,d2	c3	b2	a1,a3

أستاذ المادة: د. عواطف شاهين

رئيس مجلس القسم العلمي : ا.د. مجدى إلياس فارس