Course specifications

Programme(s) on which the course is given   B.Sc. Mathematics, Pure and Computer Science

Major or minor element of programmes   Major
Department offering the programme   Mathematics
Department offering the course   Mathematics
Academic year / Level   First (1)
Date of specification approval   September 2012
Date of specification approval

A- Basic Information

Title: Analytic Geometry (2)   Code: M115

Credit Hours: 2.5   Lecture: 2
Tutorial: 1   Practical: Total: 2.5
Teaching stuff: Dr. Maha Abd El- Fattah

B- Professional Information

1 – Overall Aims of Course

Students learn the vectors, the operations on vectors (addition and multiplication). Study the Cartisian, polar and cylindrical coordinates. Know the equation of the straight line in 3-dimensional space and the plane. Also, find the different forms of the equations of the plane. In addition, students learn and know the equation of some conics.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

a1- Demonstrate a basic knowledge of vectors, coordinate systems.

a2- Learn about the straight line in 3-dimensional space .

a3- Have a knowledge about the equation of the plane and its different   forms.

a4- Know about the sphere, cylinder and cone.

b- Intellectual Skills

      b1- Identify the different forms of the equation of plane.

      b2- Recognize the topics of the course to their application.

      b3- Formulate mathematical proofs.

c- Professional and practical skills

      c1-apply the understanding of the straight lines, planes and conics taught   in further related mathematical courses.

      c2- Solve problems about the parapooide, hyperpooide and ellepsoide.

      c3- Identify the different forms of the equation of plane.

d- General and transferable skills

     d1- Work as a part of team.

     d2- Discus the sphere and the equation of plane.

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
Vectors: definition of vector, the addition and multiplication of vectors.	11	4	3
Straight line	6	2	2
Plane equation	8	3	2
Sphere.	6	2	2
The cone and the cylinder The central coincides the parapooide, hyperpooide	10	3	4

4– Teaching and learning methods

    4.1- Lectures

    4.2- Working on hand in assignments

4.3- Attainting practical classes

5- Student assessment methods

5.1 Mid term written exam…   to assess   understanding competencies

5.2 Semester hand in assignments to assess   attendance and interesting

5.3Final term written Exam   to assess   Learning out comes and understanding .

Assessment schedule

Assessment 1… Mid term………………   **Week 7 ……………..**

Assessment 2 …Periodic activities………………   **Week 4 and 9 ……………..**

Assessment 3…Final term oral exam…………   **Week 13……………..**

Assessment 4…final term written exam…………..   **Week 14……………..**

Weighting of assessments

Mid-Term Examination	**20%**
Final-term Examination	**60%**
Oral Examination.	**20%**
Practical Examination	**00%**
Semester Work	**00%**
Other types of assessment	**00%**
Total	**100%**

Any formative only assessments

6- List of references

6.1- Course notes

     Collected and prepared notes that cover the main topics

6.2- Essential books (text books)

5.1……………………….. to assess ………………….

5.2……………………….. to assess ………………….

5.3……………………….. to assess …………………..

5.4……………………. to assess ………….……….

Any formative only assessments

6- List of References

    6.1- Course Notes

    ………………………………………………………..

    6.2- Essential Books (Text Books)

    ………………………………………………………..
    ………………………………………………………..

    6.3- Recommended Books

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    ………………………………………………………..

    6.4- Periodicals, Web Sites, … etc

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    7- Facilities Required for Teaching and Learning

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Course Coordinator: Dr. Maha Abd El- Fattah
Head of Department: Prof. Mohamed A. Ramadan
 Date: / /