SYLLABUS

Faculty : MIPA
Study Program : Mathematics Education
Course & Code : Solid Geometry/MAA310
Credit Hours : 3 sks
Semester : 3
Prerequisites & Code : Plane Geometry/MAA205
Lecturer : Himmawati P.L, M.Si.

FRM/FMIPA/065-00
5 September 2008

I. COURSE DESCRIPTION

The study of Solid Geometry includes space geometry : basic elements of space and their relations, oblique projection, perpendicular, angle, distance, prism, cylinder, cone, sphere, cross section, polyhedron

II. COURSE BASED COMPETENCY

The students will be able to explain concepts and properties of space figures, and use them to solve problems either in mathematics or in other courses.

III. ACTIVITY PLAN

Meeting	Based Competency	Main Materials	Lecturer Strategy	References
1	Preliminary	Preliminary	Discussion	A, C
2	Basic elements and their relations	Introduction	Discussion	A, C
3	Extending plane geometry into solid geometry	Extending plane geometry into solid geometry	Discussion & presentation	A, C
4	Geometric constructions	Oblique Projection	Discussion & presentation	A, C
5	Oblique projection	Oblique Projection	Discussion & presentation	A, C
6	Pencil of planes and dihedral angle	Pencil of planes and dihedral angle	Discussion & presentation	A, C
7	Angle formed by two geometric object	Angle	Discussion & presentation	A, C
8	Angle formed by two geometric object	Angle	Discussion & presentation	A, C
9	Line perpendicular to plane	perpendicular	Discussion & presentation	A, C
10	Line perpendicular to plane	perpendicular	Discussion & presentation	A, C

11	Distance of two geometric object	Distance	Discussion & presentation	A, C
12	Distance of two geometric object	Distance	Discussion & presentation	A, C
13	Definition, kind, elements of prism	Prism	Discussion & presentation	A, C
14	Lateral area and volume of prism	Prism	Discussion & presentation	A, C
15	Definition, kind, elements of pyramid	pyramid	Discussion & presentation	A, C
16	Lateral area and volume of pyramid	Pyramid	Discussion & presentation	A, C
17	1st MIDTERM			
18	Definition and its properties	Cylinder	Discussion & presentation	A, B, C
19	Definition and its properties	Cylinder	Discussion & presentation	A, B, C
20	Definition and its properties	Cone	Discussion & presentation	A, B, C
21	Definition and its properties	Cone	Discussion & presentation	A, B, C
22	Conic sections	Cone	Discussion & presentation	A, B, C
23	Definition and its properties	Sphere	Discussion & presentation	A, B, C
24	Sphere section	Sphere	Discussion & presentation	A, B, C
25	Area and volume	Sphere	Discussion & presentation	A, B, C
26	Cross section	Cross section	Discussion & presentation	A, B, C
27	Cross section	Cross section	Discussion & presentation	A, B, C
28	Definition and polyhedron's type	polyhedron	Discussion & presentation	A, B, C
29	Polyhedron's net	polyhedron	Discussion & presentation	A, B, C
30	Definition, its type, and its net	Regular polyhedron	Discussion & presentation	A, B, C
31	Net of regular polyhedron	Regular polyhedron	Discussion & presentation	A, B, C
32	2nd MIDTERM			

IV. REFERENCES

A. J.M. Aarts. 2008. Plane and solid geometry. Springer Science: New York

B. Wentworth, G and Eugene Smith, D. Solid Geometry. Ginn and Company

C. Woodruff, BW and Eugene Smith, D. New Plane and Solid Geometry. Ginn and Company

V. EVALUATION

No.	Component	Weight (%)
1.	Tasks	10
2.	Quiz	10
3.	Presentation	5
4.	Performance in the class	5
5.	Midterm	30
6.	Final Test	40
Total		100%