

الرياضيات/2

Technical college	30 Weeks	No . of week hours		
Department: Medical Instrumentation Engineering		Th.	Pr.	Unit
		3	--	6
Second Year	Subject : Mathematics(II) .			

أهداف المادة : مساعدة الطالب على تفهم القوانين و المسائل الرياضية اللازمة لغرض حل الدوائر الكهربائية البسيطة و المعقدة .

Week	Syllabus
1 st , 2 nd	Vector analysis and vector fields .
3 rd , 4 th	Linear algebra , vector calculus .
5 th , 6 th	Scalars and vectors-unit , orthogonal vectors .
7 th , 8 th	Dot product , cross product .
9 th , 10 th	Theory for vector fields vector variable function .
11 th , 12 th	Polar and spherical coordinates – gradient in polar coordinates .
13 th , 14 th	Complex number , polar form of complex number , linear .
15 th , 16 th	Algebra for complex number in polar and spherical coordinates .
17 th , 18 th	Infinite series , power series .
19 th	Convergence and divergence series .
20 th	Number and complex series .
21 st , 22 nd	Complex variable , Cauchy – Riemann equations complex series , Taylor series .
23 rd	Differential equations .
24 th , 25 th	Differential equation of the first order and n order .
26 th	Applications .
27 th	Multiple integrations .
28 th	Surface area .
29 th	Green's theorem .

30th

Stokes theorem .