School of Mathematics

Module MA22S2 — Vector calculus for science 2009-10
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Lecturer: Dr. Marianne Leitner

Requirements/prerequisites: prerequisite: MA22S1, MA22S3

Duration: Hilary term, 11 weeks

Number of lectures per week: 3 lectures and 1 tutorial per week

Assessment:

End-of-year Examination: 2 hour examination in Trinity term.

Description:
Surface integrals, theorems of Green, Gauss and Stokes. (Anton [Chapter 16])
Partial differential equations Kreyszig (Chapter 12).
See `http://www.stp.dias.ie/~leitner/` for more information.
Essential References

[**Anton**] Calculus : Howard Anton, Irl Bivens, Stephen Davis. (Author Anton, Howard; 8th
ed; Publisher New York : Wiley, c2005). [Hamilton 515 P23*7, S-LEN 515 P23*7]
(There is a 9th ed. 2009 but 8th edition was used in JF 2008–09.)

[**Kreyszig**] Erwin Kreyszig, Advanced engineering mathematics (9th edition), Wiley, 2006
[Hamilton 510.24 L21*8, S-LEN 510.24 L21*8]

January 21, 2010