

This handbook contains information on courses and components (majors, minors, streams and units) at Curtin in 2021. Further course information can be found at <https://study.curtin.edu.au/search/>. Information for the previous years curriculum is available at [Courses Handbook 2020](#).

## MATH2008 (v.1) Vector Calculus

<b>AREA:</b>	School of Elec Eng, Comp and Math Sci (EECMS)
<b>CREDITS:</b>	12.5
<b>CONTACT HOURS:</b>	3.0
<b>TUITION PATTERNS:</b>	The tuition pattern provides details of the types of classes and their duration. This is to be used as a guide only. Precise information is included in the unit outline.
<b>LECTURE:</b>	6 x 2 Hours Semester
<b>TUTORIAL:</b>	6 x 1 Hours Semester
<b>WORKSHOP:</b>	6 x 1 Hours Semester
<b>EQUIVALENT(S):</b>	8039 (v.6) Mathematics 274 or any previous version
<b>ANTI REQUISITE(S):</b>	MATH2009 (v.2) <a href="#">Calculus 2</a> or any previous version
<b>PREREQUISITE(S):</b>	310588 (v.1) Mathematics 271 or any previous version OR MATH2003 (v.1) Calculus or any previous version OR MATH1021 (v.2) <a href="#">Accelerated Mathematics for Engineers</a> or any previous version OR MATH1017 (v.2) <a href="#">Advanced Mathematics 1</a> or any previous version OR MATH1016 (v.1) <a href="#">Calculus 1</a> or any previous version OR MATH1020 (v.2) <a href="#">Calculus for Engineers</a> or any previous version
<b>UNIT REFERENCES, TEXTS, OUTCOMES AND ASSESSMENT DETAILS:</b>	The most up-to-date information about unit references, texts and outcomes, will be provided in the unit outline.
<b>ADDITIONAL TUITION PATTERN INFORMATION:</b>	Lecture: 1 x 2 hours weekly (6 weeks only), Workshop: 1 x 1 hour weekly (6 weeks only), Tutorial: 1 x 1 hour weekly (6 weeks only). To be co-taught with the first six weeks of MATH2009 Calculus 2.
<b>SYLLABUS:</b>	This unit is designed for students studying spatial sciences, to develop their spatial ability and strengthen their analytic problem-solving skills. This unit builds on students' knowledge of functions, vectors, and calculus, further extending this to scalar and vector functions of several variables and multivariable calculus. These topics are brought together through the study of fundamental concepts of vector calculus, and students will cover analysis and problem-solving techniques essential for applications such as gravitational fields.
<b>FIELD OF EDUCATION:</b>	010101 Mathematics
<b>RESULT TYPE:</b>	Grade/Mark

### Availability

YEAR	LOCATION	PERIOD	INTERNAL	PARTIALLY ONLINE	FULLY ONLINE
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**INTERNAL**

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2021	Bentley Perth Campus	Semester 1	Y
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2021	Bentley Perth Campus	Semester 2	Y
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**Partially Online Internal** refers to some (a portion of) learning provided by interacting with or downloading pre-packaged material from the Internet but with regular and ongoing participation with a face-to-face component retained. Excludes partially online internal course/units run through the Curtin Bentley-based Distance Education Area which remain Central External

**Fully Online** refers to the main (larger portion of) mode of learning provided via Internet interaction (including the downloading of pre-packaged material on the Internet). Excludes online course/units run through the Curtin Bentley-based Distance Education Area which remain Central External

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