UNSW Course Outline

AGSM9154 Managing with Digital Technology (WEB Weekly) - 2024

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General Course Information

Course Code : AGSM9154
Year : 2024
Term : Term 1
Teaching Period : T1
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : AGSM MBA Programs
Delivery Mode : Online
Delivery Format : Standard
Delivery Location : Online - Asynchronous
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

NOTE:*This course was previously identified as MBAX9154.*

Managing with Digital Technology aims to increase digital literacy of managers and leaders. The

primary objective of this course is to give you a high-level overview of the fundamental concepts and topical issues in information systems (IS) and information technology (IT) within an organisational context. This course will adopt a top-down approach and emphasise high-level mastery of important concepts in IS/IT and will equip you, as the manager, with the knowledge and skills to make more informed decisions regarding the application of IS and IT to help ensure organisational success. Students who successfully complete this course will have an appreciation of the problems faced by organisations in navigating and sustaining their digital transformation to ensure continuous value creation.

The course prepares you for product-management roles, which are increasingly becoming the job of choice for MBA students. In their quest to 'stay ahead of the competition' in today's fast-paced digital era, we are seeing more industries, in particular traditional service industries, creating their own products and services to deliver more capabilities to their customers. In turn, these new products and services require new competencies (knowledge, skills and abilities) from their managers. Being a product manager requires a diverse range of skills - management / people; technical; project management - most importantly across the business, customers and technology. It is an attractive career path for graduating MBA and management students. A successful product manager needs to master the business side of developing a product and have the knowledge, skills and abilities to interact with a wide range of stakeholders (both technical and non-technical), from customers through to product engineers and user-experience specialists.

Competencies across the digital landscape are vital in today's rapidly changing business environment. Businesses must stay ahead of the curve and be ready to compete against digital disruptors. In turn, you as the manager must be digitally savvy to be able to help your organisation navigate and sustain its digital transformation and ensure continuous value creation. *Managing with Digital Technology* will equip you to succeed in the digital era.

Relationship to Other Courses

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Demonstrate understanding of the impact of digital transformation on an organisation's ability to respond to business challenges and digital disruptors.	• PLO1 : Business Knowledge
CLO2 : Write and deliver logically and professionally presented business reports.	• PLO3 : Business Communication
CLO3 : Assess the application of software and technology stacks best suited to meet organisational needs.	• PLO2 : Problem Solving
CLO4 : Evaluate the suitability of various methods for developing digital products.	• PLO2 : Problem Solving
CLO5 : Integrate the knowledge gained throughout the course to devise methods of developing and managing technical talent in organisations in line with industry best practice.	• PLO7 : Leadership Development
CLO6 : Evaluate the range of cultural, security, privacy and ethical issues confronting individuals and organisations in the digital era.	• PLO5 : Responsible Business Practice
CLO7 : Demonstrate collaborative skills and teamwork.	• PLO4 : Teamwork
CLO8 : Work effectively and responsibly in a multicultural team environment.	• PLO6 : Global and Cultural Competence

Course Learning Outcomes	Assessment Item
CLO1 : Demonstrate understanding of the impact of digital transformation on an organisation's ability to respond to business challenges and digital disruptors.	• Group report • Multiple-choice test • Individual report
CLO2 : Write and deliver logically and professionally presented business reports.	• Individual report
CLO3 : Assess the application of software and technology stacks best suited to meet organisational needs.	• Group report • Multiple-choice test
CLO4 : Evaluate the suitability of various methods for developing digital products.	• Group report • Multiple-choice test
CLO5 : Integrate the knowledge gained throughout the course to devise methods of developing and managing technical talent in organisations in line with industry best practice.	• Individual report
CLO6 : Evaluate the range of cultural, security, privacy and ethical issues confronting individuals and organisations in the digital era.	• Participation • Individual report
CLO7 : Demonstrate collaborative skills and teamwork.	• Participation • Group report
CLO8 : Work effectively and responsibly in a multicultural team environment.	• Participation

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

Given the nature of the presentation mode for this course - online asynchronous - much of the learning and teaching will be self-guided and supported by the Facilitator-in-Charge. Self-guided learning will be done independently by working through the course materials, completing the activities, participating in the weekly online discussion forums, collaborating across the Moodle platform, and optional attendance at the Webinars - 4 webinars held throughout the Term. Webinars will be recorded and posted on Moodle for review/reference. Course materials for this course comprise the e-book with the weekly study Units - 10 Units in Total - including readings, cases, audio-visual components, references, insights, and commentary.

Additional Course Information

Managing with Digital Technology is divided into several logical parts, each forming a building block in the overall picture.

Context is the focus of **Unit 1** of this course. It is concerned with providing you with a basic contextual framework enabling you to 'connect the dots throughout the course'!

Technology and related software are the focus of **Units 2-4** of this course. Unit 2 introduces you to key technologies and how they work, including cloud computing. Unit 2 will give you an appreciation of how to maximise the use of these technologies and help you make better decisions relating to technology strategy within an organisational context.

Units 3 and 4 present the importance of data and databases in helping businesses to organise and manage their most important asset - their data! These Units also provide a practical understanding of the software stack, in particular, how the various stacks relate to each other and what types of software can be used to solve problems that naturally occur within a business environment.

Emerging and disruptive technologies and developing platforms and ecosystems are the focus of **Units 5 and 6.** You will gain an appreciation for the benefit of an ecosystem business model that can further enable emerging and disruptive technology adoption.

In **Units 7 and 8** you will learn about the software development process and be introduced to best practices in software development, implementation, and agile ways of working so that you are prepared for both types of technology implementation.

Units 9 and 10 of this course cover the management of technical organisations and the importance of data privacy and secuity . Unit 9 reflects upon the need for organisations to adopt new business models when competing in the digital age and ties closely into concepts across the area of Organisational Behaviour. This Unit serves to highlight key factors involved in managing software teams and other technical staff. You will also learn about the key components and roles required for developing multi-functional product-development teams. In Unit 10, you will learn about the importance and impact of cybersecurity and data-privacy policies for both internal and external stakeholders. You will also be introduced to some of the major cybersecurity threats faced by organisations today and potential ways to minimise/ prevent such attacks.

Structure:

Unit 1, Introduction and context. Information systems (IS) and information technology (IT) are changing the way businesses and economies operate. In this Unit, you will be introduced to a brief history of IS/IT and its relationship with commerce. You will learn about how businesses

today are adapting to the daily challenges of technological and digital disruption, with many of them using this new environment to excel and gain a competitive edge. We review core concepts in IS and IT, and explore the evolving role of digital transformation in organisations and address the need for managers to become digitally savvy - increase their knowledge and skills - to enable them to play a crucial role in their organisations.

Unit 2, Internet technologies and cloud computing. This Unit provides a brief historical perspective of the basics of the internet and explores broader opportunities that the internet offers to global businesses in the digital era. We will also explore the fundamentals of cloud computing and cloud infrastructure in helping businesses to create value and compete effectively in today's business environment.

Unit 3, Data and databases. This Unit introduces you to the organisation's most valuable asset - their data! We will explore data structures and databases as well as the various types of data - including Big Data - data storage formats, and most commonly used databases. This Unit will provide you with an understanding and appreciation of the value of data and the commercial benefits and challenges associated with ensuring that data assets are both stored and able to be retrieved in the most efficient and effective manner.

Unit 4, Web design and mobile development. This Unit highlights that an easy-to-use, engaging website is one of the key factors helping businesses to optimise the customer experience. In turn, this facilitates the attainment of business goals and objectives. We will guide you through the various types of websites, technologies and associated programming languages that power them. You will learn about the components of a website and the relationship with databases, user clients and mobile devices. With the advent of big data and the proliferation of mobile applications, in today's digital era, it is safe to say that our mobile devices and the apps we interact with know more about us than we do about their internal workings! This Unit also explores the importance of mobile apps for businesses and the role application design plays in influencing user behaviour, the ultimate aim being increases in sales/market share and the attainment of competitive advantage.

Unit 5, Emerging and disruptive technologies for executives. In this Unit, you will learn about the ever-increasing importance of emerging and disruptive technologies in today's digitally enabled business environment. These technologies have become increasingly important as the timeline for the design, development and roll-out of products and services continues to be faster than ever before. You will gain an understanding of how organisations leverage these technologies to help facilitate value creation and ultimately ensure a more positive customer experience.

Unit 6, Modern digital technologies for growth. This Unit introduces you to various digital technologies and how they can impact the efficient and effective development of new products and services for customers. The concepts build on the foundational building blocks introduced in earlier units, and provide a guide to how businesses can maximise the value they receive from digital technology while harnessing old and possibly legacy technological infrastructure. A major focus of this unit is the rise of platform-based ecosystems, defined as *"... a network where a platform owner encourages third parties to develop complementary innovations and the resulting network of firms manifests significant interdependencies" (Ceccagnoli et al 2012).*

Unit 7, Technology and software product value chain 1. Software and especially software-as-a-service have fundamentally changed existing business models, but outside deeply technical circles, little is known about how software is actually created and how the value it generates is delivered. This Unit is the first of two Units that delve into the inner workings of software delivery and value generation. You will be introduced to the concepts of continuous integration, continuous delivery and continuous deployment, and a link between high-performing IS/IT and high-performing organisations will be established. You will compare and contrast 'traditional' ways of developing software with agile ways of developing software and will understand how and when software actually delivers business value.

Unit 8, Technology and software product value chain 2. Developing software is only one half of creating value. An equally important step in the software value chain is putting the software into the hands of users. This Unit is the second of two Units that delve into the inner workings of software and delivery and value generation. You will be introduced to the concept of DevOps, which integrates development and operations and helps organisations create an organisational culture and structure that is aligned with continuous integration, delivery and deployment (introduced in Unit 7). This Unit will expose you to methods that high-performing technology organisations use to deliver software into the hands of their users, and will equip you with skills and knowledge to introduce these methods in your own organisation.

Unit 9, Managing technical talent in organisations. This Unit explores the various roles related to the management, operation and development of Information Systems and Information Technology assets. You will learn about the responsibilities and related competencies (knowledge, skills and abilities) of each role, as well as best practices used to motivate teams and manage common challenges. This Unit will expose you to management practices across some of the most iconic technology firms and will help you to understand how some of these practices can be applied to any business within the technology sector.

Unit 10, Legal, privacy and cybersecurity - impact to your business. Almost every aspect of human and commercial life is becoming increasingly digital and interconnected. This poses a significant challenge to the privacy and security of data being transmitted over various digital touchpoints. This Unit briefly explores the history of cybersecurity and key participants in the digital data exchange. You will learn about common types of cybersecurity risks, attacks, best practices for data protection and the legal consequences for businesses that pertain to data privacy and protection over their networks and digital assets.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Participation Assessment Format: Individual	25%	Due Date: Sunday of Weeks 1 to 10 by 11.59pm Sydney time	• PLO4 : Teamwork • PLO5 : Responsible Business Practice • PLO6 : Global and Cultural Competence
Group report Assessment Format: Group	30%	Due Date: Friday of Week 8 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO4 : Teamwork
Multiple-choice test Assessment Format: Individual	15%	Start Date: Tuesday of Week 10 at 10am Due Date: Wednesday of Week 10 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO2 : Problem Solving
Individual report Assessment Format: Individual	30%	Due Date: Monday of Week 12 by 3pm Sydney time	• PLO1 : Business Knowledge • PLO3 : Business Communication • PLO5 : Responsible Business Practice • PLO7 : Leadership Development

Assessment Details

Participation

Course Learning Outcomes

- CLO6 : Evaluate the range of cultural, security, privacy and ethical issues confronting individuals and organisations in the digital era.
- CLO7 : Demonstrate collaborative skills and teamwork.
- CLO8 : Work effectively and responsibly in a multicultural team environment.

Detailed Assessment Description

Participation: Engagement through weekly dialogues and discussions.

Students will be allocated to one Group – A or B. Each group will post in alternate weeks.

Assessment Length

200 words (maximum) original post; 100 words (maximum) reply

Group report

Course Learning Outcomes

- CLO1 : Demonstrate understanding of the impact of digital transformation on an organisation's ability to respond to business challenges and digital disruptors.
- CLO3 : Assess the application of software and technology stacks best suited to meet organisational needs.
- CLO4 : Evaluate the suitability of various methods for developing digital products.
- CLO7 : Demonstrate collaborative skills and teamwork.

Detailed Assessment Description

Digital Transformation enabled by emerging technologies, platforms, ecosystems, data and analytics

Assessment Length

3,000 words (maximum)

Multiple-choice test

Course Learning Outcomes

- CLO1 : Demonstrate understanding of the impact of digital transformation on an organisation's ability to respond to business challenges and digital disruptors.
- CLO3 : Assess the application of software and technology stacks best suited to meet organisational needs.
- CLO4 : Evaluate the suitability of various methods for developing digital products.

Assessment Length

90 minutes' duration from time of first opening

Individual report

Course Learning Outcomes

- CLO1 : Demonstrate understanding of the impact of digital transformation on an organisation's ability to respond to business challenges and digital disruptors.
- CLO2 : Write and deliver logically and professionally presented business reports.
- CLO5 : Integrate the knowledge gained throughout the course to devise methods of developing and managing technical talent in organisations in line with industry best practice.
- CLO6 : Evaluate the range of cultural, security, privacy and ethical issues confronting

individuals and organisations in the digital era.

Detailed Assessment Description

Digital Transformation - The Impact of the Gig Economy on the Future of Work

Assessment Length

3,000 words (maximum)

General Assessment Information

Grading Basis

Standard

Requirements to pass course

Formal Requirements

Students are expected to attempt all assessment requirements, and must achieve a composite mark of at least 50% to pass the course. Students are also expected to actively engage in course learning activities.

Failure to engage in assessment tasks that are integrated into learning activities (e.g. class discussion, presentations) will be reflected in the marks for these assessable activities.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Topic	Unit 1: Introduction and Context
	Assessment	Assessment 1: Participation
Week 2 : 19 February - 25 February	Topic	Unit 2: Internet Technologies and Cloud Computing
	Assessment	Assessment 1: Participation
Week 3 : 26 February - 3 March	Topic	Unit 3: Data and Databases
	Assessment	Assessment 1: Participation
Week 4 : 4 March - 10 March	Topic	Unit 4: Web Design and Mobile Development
	Assessment	Assessment 1: Participation
Week 5 : 11 March - 17 March	Topic	Unit 5: Emerging and Disruptive Technologies for Executives
	Assessment	Assessment 1: Participation
Week 6 : 18 March - 24 March	Topic	Unit 6: Modern Digital Technologies for Growth
	Assessment	Assessment 1: Participation
Week 7 : 25 March - 31 March	Topic	Unit 7: Technology and Software Product Value Chain 1
	Assessment	Assessment 1: Participation
Week 8 : 1 April - 7 April	Topic	Unit 8: Technology and Softward Product Value Chain 2
	Assessment	Assessment 1: Participation Assessment 2: Group Report due on Friday by 3pm Sydney time
Week 9 : 8 April - 14 April	Topic	Unit 9: Managing Technical Talent in Organisations
	Assessment	Assessment 1: Participation
Week 10 : 15 April - 21 April	Topic	Unit 10: Legal, Privacy and Cybersecurity - Impact to your business
	Assessment	Assessment 1: Participation engagement through weekly dialogues and discussions Assessment 3: Multiple-choice test will be available in Moodle on Tuesday at 10am Sydney time. It must be completed by Wednesday at 3pm Sydney time.
Week 11 : 22 April - 28 April	Other	Independent study
Week 12 : 29 April - 5 May	Assessment	Assessment 4: Individual Report due on Monday by 3pm Sydney time

Attendance Requirements

Students must engage in weekly online asynchronous discussion forums and other activities. There are some optional webinars or drop-in group video calls (recorded for those who cannot attend).

Course Resources

Prescribed Resources

You have three major resources to help you learn:

1. The course materials, comprising the weekly study Units with readings, cases, references, insights and commentary. You will do much of your learning outside the classroom by working through the course materials, and completing the activities.
2. Your online or face-to-face classes with your Facilitator. The Facilitator's job is to guide your learning by conducting class discussion, answering questions that might arise after you have

done the week's work, providing insights from their practical experience and understanding of theory, providing you with feedback on your assessments, and directing discussions and debates that will occur between you and your co-participants in class.
3. Your co-participants. Your colleagues in the class are an invaluable source of learning for you. Their work and life, and their willingness to question and argue with the course materials, the Facilitator, and your views, represent a great learning opportunity. They bring much valuable insight to the learning experience.

Recommended Resources

The course materials, comprising the e-book with the weekly study Units including readings, cases, references, insights and commentary. Given the nature of the presentation mode for this course - online asynchronous - much of your learning will be done independently by working through the course materials, completing the activities, participating in the weekly online discussion forums, collaborating across the Moodle platform, and optional attendance at the Webinars - 4 webinars held throughout the Term. Webinars will be recorded and posted on Moodle for review/reference.

Course Evaluation and Development

Student feedback from previous offerings has been reviewed and, where appropriate, has been incorporated into the 2024 course offerings.

Given the nature of the course and the rapid change across the digital landscape, students appreciated the inclusion and regular updating of course videos and generally accepted models adopted by both academia and industry.

Student feedback included a preference for webinar sessions to facilitate collaboration and learning across the course. To accommodate this feedback, in Term 1 2024, we are offering Webinars across the online asynchronous course offering. Attendance is optional and recordings of Webinars are available for student review. These optional Webinars (4 across the Term) help to foster collaboration and engagement across the student cohort.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Facilitator in charge	Christine V an Toorn		QUAD 2092A - West Wing Level 2	MS Teams +61 (2) 9065-5341	Please email for consultation - c.vantoorn@unsw.edu.au	No	Yes

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the

process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.

5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under "Special Consideration" on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the 'wrong' assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.