

Handbook 2020

Coursecode

B1317

Murdoch University

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Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Alternative Formats

Handbook home page:

<http://handbook.murdoch.edu.au>

This publication can also be provided in alternative formats by contacting the Equity and Social Inclusion Office at Murdoch University

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Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Group	Course	Offerings
Games Software Design and Production	Games Software Design and Production (BSc)	<ul style="list-style-type: none"> • Murdoch campus (internal) • Murdoch campus (external) • Kaplan Higher Education Institute and Kaplan Higher Education Academy (Singapore) ['KAPLAN-SGP'] (internal) (language of instruction: English)

GAMES SOFTWARE DESIGN AND PRODUCTION

GAMES SOFTWARE DESIGN AND PRODUCTION (BSC)

Murdoch's Bachelor of Science is a flexible degree which gives you the opportunity to build deep understanding and practical experience as well as to supplement your studies by engaging with industry and the community on relevant problems. You can even undertake studies through another discipline to broaden your understanding of the way in which science operates in relation to social, business, health and policy environments.

Availability:

- Murdoch campus (internal)
Murdoch campus (external)
Kaplan Higher Education Institute and Kaplan Higher Education Academy (Singapore) ['KAPLAN-SGP'] (internal) (language of instruction: English)

Mathematics and Statistics

Course Codes: B1317 B1317A

Bachelor of Science (BSc) in Games Software Design and Production

Recommended Double Majors:

Business Information Systems; Computer Science; Cyber Security and Forensics; Games Technology; Internetworking and Network Security; Mobile and Web Application Development

Excluded Minors:

Games Design

The Games Software Design and Production major prepares and provides students with a thorough understanding of the theory of games software design, development and processes involved in the production of computer, mobile and video games. The required topics include but are not limited to games software design, games mechanics, games software development and production, and interaction design. Students will gain practical experience in the games design and development processes using games development tools.

Special Requirements:

There may be some reduction in choice of units if completing this course in the external mode. Individual units may require access to specific nominated software.

Employment Prospects:

The major equips students with a range of problem solving and professional skills which are essential for working in the games (or visualisation) industry. The outcomes of the major can be aligned with Software & Apps Programmer, Systems Analyst, and Analyst Programmer roles listed in the ACS Common ICT Job Profiles & Indicators of Skills Mobility document.

Duration: 3 years full-time or part-time equivalent

Admission Requirements (Onshore):

As per normal undergraduate admission requirements.

Course Structure - 72 credit points

Part I - 24 credit points

Year 1 - 24 credit points

Transition Unit - 3 credit points

- ICT100 Transition to IT - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external
- OR (for Kaplan and Dubai students only)

BBS100 Academic Skills for Business - 3 points

Breadth Unit for Degree - 3 credit points

- MSP100 Career Learning: Managing Your Career - 3 points
MURDOCH: S1-external, S2-external

Core Units - 15 credit points

- ICT167 Principles of Computer Science - 3 points
MURDOCH: S2-internal, S2-external
KAPLAN-SGP: TJA-internal, TMA-internal, TSA-internal
- ICT159 Foundations of Programming - 3 points
MURDOCH: S1-internal, S1-external
- ICT169 Foundations of Data Communications - 3 points
MURDOCH: S2-internal, S2-external
- MAS162 Foundations of Discrete Mathematics - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external
- ICT170 Foundations of Computer Systems - 3 points
MURDOCH: S2-internal, S2-external

General Electives - 3 credit points

Select from any 100-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Recommended General Electives

- ICT101 Introduction to 3D Graphics and Animation - 3 points
MURDOCH: S2-internal, S2-external

OR

- ICT105 Introduction to Information Technology - 3 points
Not available this year

Part II - 48 credit points

University-Wide Breadth Unit - 3 credit points

Select from the prescribed list of University-Wide Breadth Units. A unit cannot be used to satisfy both this Breadth Unit requirement and the requirements of a major or minor. If taken at 100 level the unit(s) will be attributed to Part I. Note that no more than 30 credit points at Part I may be credited towards course completion requirements.

Year 2 - 21 credit points

Research Skills Unit - 3 credit points

- BSC203 Introduction to ICT Research Methods - 3 points
MURDOCH: S1-internal, S1-external
KAPLAN-SGP: TMA-internal

Core Units - 9 credit points

- ICT284 Systems Analysis and Design - 3 points
MURDOCH: S1-internal, S1-external
KAPLAN-SGP: TMA-internal
- ICT288 Virtual Realities and Games Software Design - 3 points
MURDOCH: S1-internal, S1-external
KAPLAN-SGP: TMA-internal
- ICT285 Databases - 3 points
MURDOCH: S2-internal, S2-external
KAPLAN-SGP: TJA-internal, TSA-internal

General Electives - 9 credit points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Year 3 - 24 credit points**Research Skills Unit - 3 credit points**

BSC301 Applied Research Skills in ICT - 3 points
 MURDOCH: S1-internal, S1-external
 KAPLAN-SGP: TJA-internal, TSA-internal

Core Units - 12 credit points

ICT396 User Interface Design - 3 points
 KAPLAN-SGP: TJA-internal, TSA-internal

ICT367 Virtual Realities and Games Software Production
 - 3 points
 KAPLAN-SGP: TMA-internal

ICT365 Software Development Frameworks - 3 points
 MURDOCH: S2-internal, S2-external
 KAPLAN-SGP: TJA-internal, TSA-internal

ICT302 IT Professional Practice Project - 3 points
 MURDOCH: S1-internal, S1-external, S2-internal, S2-external
 KAPLAN-SGP: TJA-internal, TMA-internal, TSA-internal

General Electives - 9 credit points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Recommended General Electives

ICT319 Intelligent Systems - 3 points
 MURDOCH: S2-internal, S2-external
 KAPLAN-SGP: TJA-internal, TSA-internal

PREREQUISITES
Academic Skills for Business (BBS100)

Enrolment in Bachelor of Business, Bachelor of Commerce, Bachelor of Economics, Bachelor of Business in Applied Accounting, or Bachelor of Digital Marketing and Media, Bachelor of Business in Sustainability, or Bachelor of Science, or Bachelor of Arts

Applied Research Skills in ICT (BSC301)

BSC203 Introduction to ICT Research Methods and enrolment in one of the following Information Technology majors: Computer Science or Business Information Systems or Cyber Forensics and Information Security or Games Software Design and Production, or Games Technology or Internetworking and Network Security or Mobile and Web Application Development.

Career Learning: Managing Your Career (MSP100)

Nil.

Databases (ICT285)

ICT102 Introduction to Computer Science or ICT159 Foundations of Programming or ICT170 Foundations of Computer Systems.

Foundations of Computer Systems (ICT170)

Nil.

Foundations of Data Communications (ICT169)

Nil.

Foundations of Discrete Mathematics (MAS162)

MAS164 Fundamentals of Mathematics/MAS182/MAS161 OR a final scaled score of 55% or more in ATAR Mathematics Applications or WACE Mathematics 2C/2D OR a final scaled score of 50% or more in ATAR Mathematics Methods or WACE Mathematics 3A/3B (or higher) OR equivalent.

Foundations of Programming (ICT159)

Nil.

IT Professional Practice Project (ICT302)

Students must be enrolled in an IT major and have accumulated 56 credit points. Students should also have passed ICT290 Games Design and Programming, OR ICT284 Systems Analysis and Design and ICT285 Databases.

Intelligent Systems (ICT319)

ICT167 Principles of Computer Science OR ICT104 Principles of Computer Science.

Introduction to 3D Graphics and Animation (ICT101)

Nil.

Introduction to ICT Research Methods (BSC203)

BSC100 Building Blocks for Science OR ICT100 Transition to IT, AND enrolment in one of the following Information technology majors: Computer Science or Business Information Systems or Cyber Forensics and Information Security or Games Software Design and Production, or Games Technology or Internetworking and Network Security or Mobile and Web Application Development.

Introduction to Information Technology (ICT105)

Nil.

Principles of Computer Science (ICT167)

ICT159 Foundations of Computer Programming or ICT102 Introduction to Computer Science.

Software Development Frameworks (ICT365)

ICT167/ICT104 Principles of Computer Science and ICT284/ICT231 Systems Analysis and Design

Systems Analysis and Design (ICT284)

ICT102 Introduction to Computer Science OR ICT159 Foundations of Programming OR ICT107 Principles of Information Systems OR ICT158 Introduction to Information Systems or enrolment in a postgraduate IT course.

Transition to IT (ICT100)

Enrolment in the Bachelor of IT & Business or the Bachelor of Science (IT majors).

User Interface Design (ICT396)

ICT284 Systems Analysis and Design OR ICT231 Systems Analysis and Design.

Virtual Realities and Games Software Design (ICT288)

ICT167 Principles of Computer Science.

Virtual Realities and Games Software Production (ICT367)

ICT284 System Analysis and Design or ICT288/ICT241 Games Software Design.

Personal Study Plan

Unit Sets:

Year	Semester 1	Semester 2
1		
2		
3		
4		