As reported in the Games Developers Association of Australia Industry Profile Report\(^1\), the games industry in Australia employs over 1400 people and consists of around 45 distinct businesses. In the period from September 2006 to July 2007 approximately 300 new jobs were created. Total income for the industry was over 100M in the 2006/07 financial year. Over 80% of this income is export oriented, indicating the globalization of the industry. The number one key challenge facing the industry is attracting skilled staff.

The Bachelor of Computing (Games Technology) degree is a compelling offering that has a significant proportion of units that are clearly identifiable as games related. It also retains the essential units from the more general Bachelor of Computing allowing students to seek employment in any ICT field, not just in the gaming industry. This course is fun and interesting but also has some units that allow the students to challenge themselves at the higher levels to develop some in-depth technical gaming skills.


### Course structure

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Intermediate and advanced degree elective units are selected from the following:

- Advanced Dynamic Web Development
- Human Computer Interaction
- Multi-core Architecture and Programming
- Programming C# & .NET Applications
- Concurrent Programming
- Data Mining & Text Retrieval
- Mobile & Ubiquitous Computing
- Advanced Algorithmic Problem Solving & Programming
- Computer Security
- Computer Networks
- Artificial Intelligence

Advanced major elective units are selected from the following:

- Multi-core Architecture and Programming
- Mobile & Ubiquitous Computing
- Artificial Intelligence
**Degree outcomes**

A graduate of this course should be able to contribute to meeting the computing (ICT) needs of individuals, organisations and the wider community. The graduate should be able to:

1. demonstrate foundational computing knowledge of:
   - programming, algorithms & data structures
   - systems and applications
   - historical and current trends
   - games technology

2. apply knowledge of computing principles and technical skills to develop and maintain solutions by:
   - using abstraction and computational thinking
   - evaluating strengths and weaknesses of potential solutions
   - creating artefacts using a variety of techniques and tools
   - selecting and following a recognised software development methodology
   - adapting existing and emerging computing technologies

3. act professionally by:
   - communicating in different modes to diverse audiences
   - adhering to professional and ethical codes of conduct
   - working independently and collaborating in diverse teams
   - considering economic, social, legal, and ethical consequences

**Career outcomes**

Graduates will find employment in games production companies of all sizes. Games and simulations are closely related, and graduates of the degree would be equally employable in either industry. Graduates of the course can expect to work in a wide range of games specific areas including game designer, game developer, game programmer, component integrator, and simulation developer. The computing fundamentals studied in the course also equip students for traditional IT careers including project manager, software engineer, programmer, software analyst, software designer, software tester and many more.

**School facilities and resources**

Students will gain experience in state-of-the-art laboratories using Apple Macintosh, Microsoft Windows and Linux. All systems in the School of Computing & Information Systems access AARNet (the Australian Academic and Research Network), which connects most Universities and research organisations in Australia to the Internet. Wireless networking is provided for student-owned laptops. School facilities and resources are available to students twenty four hours per day, seven days per week. In addition to the academic program, the School holds dinners, barbecues and social events throughout the year, and there are support and interest groups such as the Tasmanian University Computer Society (TUCS), a Mentor scheme for beginning students, and an International Affairs Coordinator to assist overseas Computing students.

**Entry requirements**

To study the Bachelor of Computing (Games Technology) you need to have obtained at least four pre-tertiary Level C TCE subjects, (or interstate equivalent). There are no prerequisite subjects. Mature age students (over 21 years of age) are accepted upon demonstration of ability to successfully complete the course.

**Financial assistance and fees**

Generous Tasmanian Scholarships are available to students from Australia and overseas. Australian students must pay the Higher Education Contribution Scheme (HECS), either up front at 20% discount, or deferred until able to repay through the taxation scheme. Services and Amenities fees are payable annually, and an Entrance Fee is charged in the first year of enrolment. Other expenses include text books, stationery and photocopying.

**Contacts**

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