

***Software Engineering  
@ Griffith University***

*Professor Geoff Dromey  
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Queensland, Australia*




[www.griffith.edu.au](http://www.griffith.edu.au)

***What Others think of SE Degree***

“The Panel saw this program as a benchmark for the four-year Bachelor of Engineering in Software Engineering, which other universities would do well to study and emulate. The entire program clearly operates at a high standard of excellence and the enthusiasm, commitment, and professionalism of both staff and students were a real pleasure to encounter. The Panel offers its sincere compliments on an exceptional achievement”.

ENGINEERING AUSTRALIA – Accreditation Panel


 **Griffith** UNIVERSITY

### *What Others think of SE Degree*

“I feel that in my case, the degree program fully achieved its objectives:

- I feel I have been given a very strong understanding of Software Engineering in all aspects that has greatly assisted me in the workplace environment
- In less than two years from graduation I am running a key department within my organization and are helping to grow my staff into quality professionals. I am strongly involved in nearly all improvement initiatives and develop many of them myself. That I am capable of doing this is in a large part due to the experiences from the two full year projects that are part of the SE degree.”

Software Engineering Graduate

 **Griffith** UNIVERSITY

### *What Others think of SE Degree*

**Industry Profile Information**

Organisation Name:	K. J. Ross & Associates
Location	Gold Coast (head office)/Brisbane/Sydney
Take school leavers or mature age graduate?	Both
What ICT discipline graduate do they accept?	Only Software Engineers, or IT with SE major
Typical job roles/titles?	Test Engineer, Test Analyst, Test Manager, Developer, Trainer
What domain of work?	Software Testing
Other information that may assist EA	We are a small company of around 15 people. Of the last 7 people we have hired, 6 have come from Griffith University and 3 were enrolled in the Software Engineering degree. Of the remaining 3, 2 participated in the Software Engineering major of the BIT program and the other lectured and tutored Software Engineering.

Queensland SE Company

## *What Others think*

SEPG 2005

“Again, I enjoyed catching up, ... and remain impressed with the great work the SQI/Griffith team, continue to put into research and other activities in the pursuit of excellence in software engineering, quality, PI etc. For what it is worth, I consider your academic organisation to be a leader in the country in these areas”

Manager Quality, Tenix – Australia's largest Defence Company

## *What we Think - History*

- Teaching Software Engineering Major since 1985
- Bachelor of Software Engineering Degree since 1996
- Probably the Second IE(Aust.) Accredited Degree in SE
- Master of Software Engineering Degree since 1996

## **Software Engineering Course Philosophy**

- *To achieve a balance between theory and practice*
- *To provide an authentic software engineering course rather than a CS++*
- *To provide significant exposure to industry best-practice and produce graduates who can play a leading role in implementing best-practice*

## **Course Focus**

- Analysis, Design and managing complexity
- Knowledge of another discipline - microelectronics
- Strong emphasis on project management/projects
- Technical competence – programming
- Focus on software quality, PSP, CMMi, etc

## *Course Structure*

- Course is highly structured with little choice
- Microelectronics in first three years + Physics, Maths
- Programming (3 courses) first two years
- Increasing group project work from second year
- Whole of Class project in fourth year (cf SEI)
- Honours and Pass streams in fourth year only

## *Strengths*

- Knowledge of Industry Best-Practice, CMMi, PSP
- Project management skills + Documentation
- Ability of graduates to easily fit into large-scale SE projects
- Impact of Personal Software Process from first year onwards – students measure and plan
- Legitimate Project Experience
- Staff links to industry and involvement of industry people

## *What Our Graduates Do*

- Boeing – Software Architect, software engineers
- Virgin Blue – Software Development manager
- eFox – Project manager
- Mincom – numerous positions
- Suncorp – numerous positions
- Department of Defence
- Founder of own consulting company

## *Industry Engagement*

- Regularly run courses for industry and Defence
- Annually run SEPG Conference
- Work closely with international standards bodies
- Strong links with the SEI the leading software engineering institution in the world
- Regular conduct projects with industry
- In 2000 founded a successful company in the Defence Sector – Calytrix Technologies

- ARC Centre for Complex Systems (ACCS)
- **Software Quality Institute (SQI)**
- **Institute for Integrated and Intelligent Systems (IIS)**
- 19 current PhD students
- Research Income in 2005 over \$600,000
- International Links to SEI, ESI and Fraunhofer

- Professor Geoff Dromey
- Associate Professor Terry Rout
- Mr Don Abel
- Dr Francis Suraweera
- Ms Angela Tuffley
- Mr David Tuffley
- Mr Ian Rose