

## The Advanced Study Program in Science

Challenging, motivating and inspiring our best science students.

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THE UNIVERSITY OF QUEENSLAND

## History

Began in 2001 in response to student feedback and observations that our brightest students often experienced:

Boredom

Isolation

Limited exposure to research science as a possible career



## What does ASP provide?

Cohort bonding

Seminars

Special coursework

Research projects from 2nd year

Undergraduate research conference



The ASPinS Program

## What is ASP?

- A three year program of enhanced learning activities targeted at:

**High achieving, highly motivated science students with an interest in research.**

- It is NOT an accelerated program.
- It IS a cohesive series of additional activities centered around three coded subjects, one in each year.

## Program structure

BIOL1017 Pass/Fail

BIOL2017 Pass/Fail

BIOL3017 Marked

} Each includes all program activities for a year

## Recruitment

- OP1-3 students (equates to the top 3.55% of school leavers or equivalent) who apply for BSc (or allied degree) at UQ received an invitation to APPLY for ASP.
- Eligible applicants are interviewed and 40-50 are chosen the week before semester 1.

## Two additional opportunities

- Small intake at the end of 1<sup>st</sup> semester to replace those that withdraw.
- Another small intake at the beginning of 2<sup>nd</sup> Year to replace those that withdraw or are recommended not to continue due to poor grades.
- Process is the same – application and interview.

## BIOL1017 Perspectives in Science

Week 1: 2 day **camp** (Moreton Bay)  
Sem.1: **Lunch time seminars** with very senior research scientists.

**Sem 2: Course for credit graded Pass/Fail:**

**Weekly Modules:** discussion sessions, laboratory experiments, reflective diary, group presentations. A range of topics covered: Human sexuality and development, Energy for the future, Schizophrenia.

**Undergraduate research Conference** (session chairs)

## Year 2

### Perspectives in Research Science

Week1: 2 day **camp** (Lamington National Park)  
Sem 1: **Fortnightly seminars** with **young** research scientists

**Sem 2: Course for credit graded Pass/Fail:**

**Join a research group**, attend lab meetings etc. Immerse into the research culture and gain understand of how research is carried out in a team. Undertake mentoring through group leaders and senior members. Conduct a simple research project.

**Undergraduate research Conference:** Present research results as a poster or oral presentation at the annual research conference.

## Year 3

### Further Perspectives in Research Science

**Casual dinner** with previous class.

**Research seminars:** must attend 10 seminars of choice from across UQ.

**Genuine research project :** Develop authentic research skills and participate in an active research group.

**Undergraduate Research Conference:** Present a poster or oral presentation.

**“Graduation” dinner** (evening of conference) Celebration of achievements. Recognition of efforts by family, friends and mentors.



## Cohort bonding

(camps, BBQs, pizza at the pub night, 3rd year dinner)



www.bfics.uq.edu.au

Faculty of Biological & Chemical Sciences  
presents the fourth annual

advanced study program  
in science

**Undergraduate  
Research Conference  
2006**

7th October 2006, 8.30am - 3.30pm  
Registration Desk open from 8.30am  
Auditorium & Foyer  
Old Bioscience Precinct (GGP)  
The University of Queensland, St. Lucia

**Conference Details**

8.30 am  
Registration opens

9.00 - 9.05  
Welcome to participants and attendees  
Dr. Aislinn Blainey, Director, Advanced Study Program, in Science

9.05 - 9.15  
Welcome address  
Prof. Mark Truss, Dean of the Faculty of Biological & Chemical Sciences

9.15 - 9.20  
Plenary address  
Prof. Mark Truss, Director, Centre for Nanotechnology & Biomaterials, UQ

9.30 - 10.30  
Session 1  
Student presentations

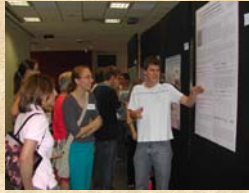
10.30 - 11.00  
Networking Tea

11.00 - 12.30  
Session 2  
Student presentations

12.30 - 1.00  
Lunch

The Undergraduate Research Conference is a student co-ordinated research conference to showcase the

"What a day! I was so proud of everyone! It went so well!"  
 Second Year BSc student, October 2003



A process of **evaluation**

Yearly surveys, interviews, focus groups

Data collection on students after they leave ASPinS

Program changes each year based on student suggestions and feedback. Students feel they have ownership of the program and can make a difference to its success.

Outcomes for **1st year students**



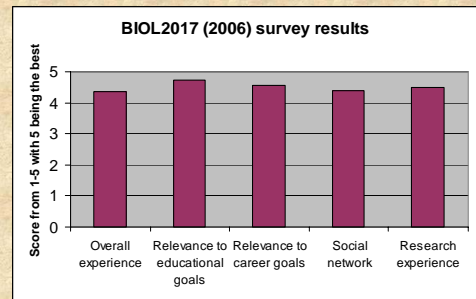
"ASPinS has been fantastic. I believe this course is just what a science degree needs - exciting science with ambitious friends. A great experience all round!"  
 David McAnelly

"I liked the fact that we got exposed to a range of areas in science. Most of us don't know where exactly we want to go in science and this program has really helped."  
 Georgie Davies



Outcomes for **2nd year students**

Rating  
 1-5  
 (5=best)



Outcomes for **3rd year students**

*"If it hadn't been for the Advanced Study Program in Science from year 1, I probably would have left uni"*

Third year student, 2005, GPA 6.7

*"I would just like to say thank you for providing such a great program - without ASP it is unlikely that I would have decided to undertake honours."*

Third year student, 2006

	ADVANCED STUDY			OPI-3 STUDENTS IN TOTAL COHORT			TOTAL BSc COHORT
	2002	2003	2004	2002	2003	2004	2003
Commencing cohort year	2002	2003	2004	2002	2003	2004	2003
Number graduating 3 years later*	22	18	22	73	85	82	293
Number (%) proceeding to Honours in the year following graduation	19 (79%)	15 (83%)	10 (45%)	36 (49%)	36 (42%)	21 (26%)	63 (24%)
MBBS (Medicine)	2	3	2	NA	NA	NA	53
Left university with BSc	6	0	2	NA	NA	NA	138
Not graduated (includes dual degree students)		1	8	NA	NA	NA	27

### Outcomes for **academics**

*"I would be delighted to help in any way to interact with such a study student and the very large group of students"*

*Yes, as Prof. Siobhán Wainwright a former ASP student that did honours with me has a coauthored paper in nature from her work, while another has two papers submitted from her honours. Both students have been accepted at Melb Uni for PhDs."*

Prof. Hugh Possingham

### Elitist?

**Unashamedly.**

- 40 students/cohort
- Strict minimal mark requirements
- 2nd year entry opportunity
- Recognition on academic transcript

### Attrition?

**Yes...and we are okay with that**

- Need to focus on other coursework
- Research is not for them
- Work and social commitments
- Dual degree students

*"I'm glad that ASP gave me a chance to experience the lab environment, and see that research was not my field of choice (as opposed to finishing my degree and finding this out through Honours). I'm now looking into doing PR and marketing in a scientific field."*

*Third Year Student 2007*

### UQ BACs Faculty contacts

Program administrator  
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