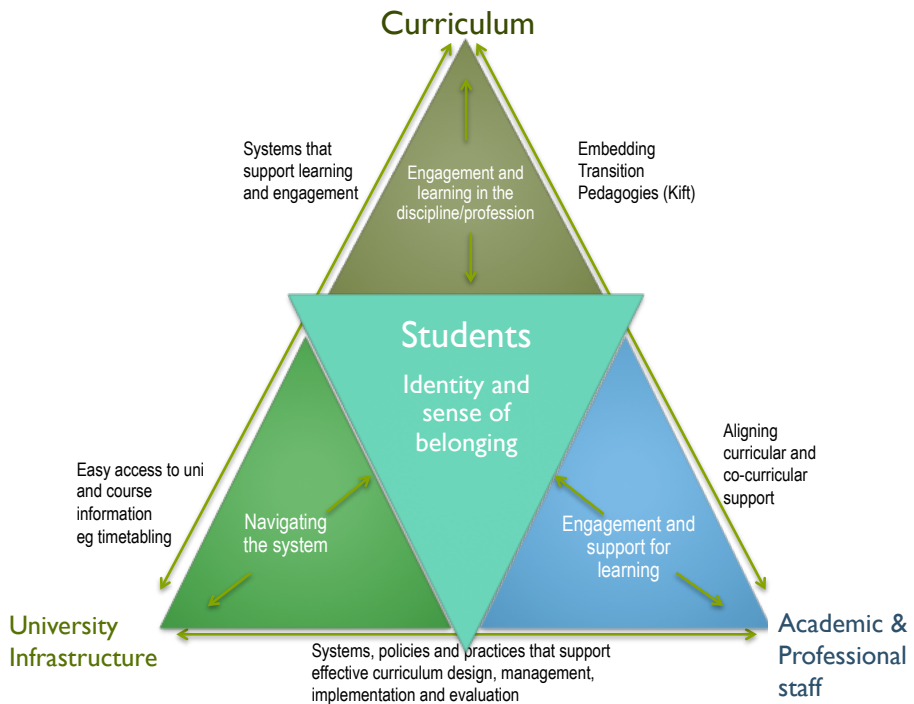




# SUCCESSFUL STUDENT TRANSITION

**A guide to teaching students in  
their first year at university**

*This guide has been produced as part of the [UTS First Year Experience Strategy](#)*



*Figure: UTS First Year Experience Framework*

Julie Sparks, Isabelle Bennett, Alexandra Crosby, Kathy Egea, Neela Griffiths, Adam Aitken, Nicola Parker, Jo McKenzie

(Version 1, 2014)

This booklet has been produced by the Institute for Interactive Media and Learning (IML), UTS.

We acknowledge the contributions of the FYTE coordinators and the FYE advisory members.

Cover photograph by Adam Aitken, UTS First year Design Camp, Cockatoo Island, 2014.

Transition to university can be overwhelming for many first year students – and their teachers. This guide provides ideas, information and resources for you to help students succeed and meet the challenges of university life, so that they thrive during transition to higher education. The guide builds upon the [Online Survival Guide](#) and the **Survival Guide: For new teachers at UTS** (yellow booklet), available from the Institute for Interactive Media and Learning (IML) and [online](#).

UTS Learning and teaching frameworks that also influence teaching practice for first year and other transitioning students are:

- The [UTS Model of Learning](#) which sets out the three aspects of the practice-oriented learning and teaching.
- [Graduate Attributes](#) embedded at course or faculty level explain the intellectual, professional and personal attributes, characteristics or qualities that students will develop for disciplines and professions.
- [Learning 2014](#) approaches which are changing the student experience through the seamless integration of the best of online and face-to-face learning.

The guide draws on transition principles and actions that research has shown to make a difference for first year students (Kift & Nelson, 2005; Kift, 2009). Further information about transition pedagogy available from the First Year in Higher Education (FYHE) [website](#).

## HOW TO USE THIS GUIDE

This guide has been structured around six first year curriculum principles. The key priorities for each principle are identified and explained in terms of teaching practice with effective strategies and lists of hands-on tips.

Although the guide has been designed to focus on each principle, you may find it most helpful to dip into as the semester progresses. Some information appears in different ways more than once as the principles overlap. Underlined text links to further information available online (hyperlinked in digital version).

## WHAT IS TRANSITION PEDAGOGY?

*Transition pedagogy* is an evidence-based set of six principles for best practice learning and teaching for first year (or first stage) students ([Kift 2009](#)). These first year curriculum principles: **Transition; Diversity; Design; Engagement; Assessment; and Evaluation & Monitoring** are independent and complementary approaches.

<a href="#">Transition</a>	supporting students to build on past educational experiences and become independent, lifelong learners, at university, and beyond.
<a href="#">Diversity</a>	recognising that students come from varied backgrounds, groups, and experiences and have different needs and approaches to learning.
<a href="#">Design</a>	formulating teaching approaches and resources to support these students for independent, active and successful study.
<a href="#">Engagement</a>	connecting with students for collaborative and creative learning in and out of class.
<a href="#">Assessment</a>	strategies for formative feedback and ‘workshopping’ criteria and exemplars with students.
<a href="#">Evaluation &amp; Monitoring</a>	strategies to enable teachers to identify students at risk, intervene in a timely way and reflect on ways to improve classroom practice.

UTS examples of successful first year grants and associated activities can be found on the UTS research and teaching page under Teaching and learning (see <https://www.uts.edu.au/research-and-teaching/teaching-and-learning/first-year-experience-project/project-focus>).

## GETTING HELP

For further advice and help to design resources contact your faculty IML Teaching and Learning liaison and/or your Academic Language and Literacy (ALL) developer (see <http://www.iml.uts.edu.au/about/contacts.html>) or email [iml@uts.edu.au](mailto:iml@uts.edu.au).

If your students need support, they can contact [HELPS](#).

# CONTENTS

<a href="#"><u>Transition</u></a>	4
<a href="#"><u>Diversity</u></a>	10
<a href="#"><u>Design the in-class experience</u></a>	16
<a href="#"><u>Engagement</u></a>	22
<a href="#"><u>Assessment</u></a>	29
<a href="#"><u>Evaluation and Monitoring</u></a>	34
<a href="#"><u>Resources</u></a>	37
<a href="#"><u>External Resources for Teachers</u></a>	40
<a href="#"><u>Bibliography</u></a>	41

# TRANSITION

---

## 1. Support students in moving from previous experiences to university study

*Introduce yourself* and tell them how to address you and contact you via email. Write these details on the whiteboard so no-one is confused (you might need to do this in the second and third classes also as students may arrive over the first few weeks of semester).

*Talk about expectations and classroom protocol.* Build class discussion about expectations from small group discussions on what students expect from you, and from themselves. Introduce the subject by demonstrating how the subject links students' past experiences and their future goals. Make time to discuss everyone's expectations. Be positive, but honest, about academic expectations and workloads.

*Use the Subject Outline as the class blueprint.* In the first class, going through the Subject Outline together helps everyone to understand requirements, academic conventions and subject organisation, including the graduate attributes being addressed in the subject. This may be the first time any of your students has seen a Subject Outline, so ensure they understand its purpose and importance for assessment requirements.

*Leave out detail.* To avoid overload and confusion, leave detailed explanations of assessment requirements and criteria until closer to the due dates.

*Make the first class* a good learning experience. Get the students to identify the learning outcomes for the subject, and link these outcomes to the subject's graduate attributes. If they understand why these are important they will be more likely to persist in their studies. Establish ground rules. Advise about breaks and when to ask questions.

*Get student interaction from the first class.* Think about how students learn actively and how they can demonstrate this to you and one another. For example, stage introductions as pair activities, or set up pair-exchanges of experiences to facilitate interaction and confidence. Encourage students to volunteer comments but be tactful as some students will be shy or nervous for a week or two.

*Talk about how they can contact you via the UTS email procedure* and specify an email format; explain that students need to check their student email box and UTS Online daily to ensure they keep up with communications from the faculty, the coordinator and yourself. Check important UTS Services, such as HELPS, the library and U:PASS, listed at the back of this booklet.

## **TEACHING TIPS**

- Tell students what to bring to class: iPads, computers workbook, Subject Outlines, notebooks, pens, highlighters. Discuss your rules for usage of phones.
- Use the Subject Outline intensively: Get students to highlight due dates in the Subject Outline, in the first class (you might have to lend highlighters). Emphasise assessment instructions, elicit understanding, and re-explain if necessary.
- Document with the class what expectations and rules will work for the class and agree on what can be flexible. Email the list so students get familiar with using their UTS email account.
- Address students' questions in class by having each student write their enquiries on post-it-notes and sticking these on a wall. Sort them and have groups come up with suggestions.
- Have a previous student visit to talk about his or her experience and answer questions.

---

## **2. Prepare students to see transition as an ongoing experience**

*Discuss learning at university.* Stress the importance of good communication and personal responsibility for learning. Introduce ideas about independent, lifelong learning. Discuss how they will develop their skills to support their independence as learners. Explore with students your role as facilitator and their role as active learners

*Run timely, well-sequenced classes:* this is particularly important for transitioning students, who often experience extreme ‘information overload’. Planning is critical to sequence activities and information ‘just in time’ so you have the right resources ready to support students at the right time. Ensure students understand how the subject is sequenced and increases in complexity.

*Embed academic literacies and communication skills into your subject.* Students learn best if they learn these skills in a domain specific context.

*Discuss plagiarism and academic integrity.* Do not assume that students understand referencing, plagiarism and academic integrity. Be explicit and demonstrate the correct referencing protocols in your subject, and explain what is meant by plagiarism with examples. Plagiarism tutorial and quiz can be found on <http://web.uts.edu.au/teachlearn/avoidingplagiarism/> . Other resources to help can be found on the library and HELPS website.



# TEACHING TIPS

- Keep classes timely and coherent; cover the most important concepts and set the rest for independent activity or on-line discussion, allowing time in the following class for review.
- Use simple oral and written language. Students need clear explanations of procedures, concepts, requirements and criteria. Specialist terms need explaining when introduced.
- You could check your language by recording yourself and reflecting later on its clarity.
- Be patient, check for understanding and be prepared to sometimes rephrase explanations. Re-demonstrate key websites in class over the semester.
- Supply real-life examples, perhaps short anecdotes or stories of your own to assist understanding. Consider describing your own transition to university, Use examples from the work place, job interviews, or your community.

---

### **3. Orient students to work, professional practice and careers**

*Help students to see themselves as entrants to their profession.* Help them to see themselves as ‘apprentices’ or ‘novices’ (Hyland, 2009), journeying towards professional expertise (including building on previous experience), learning to act and communicate in a professional and ethical manner.

*Contextualise your class activities in professional terms.* Explain that studying at university is preparing students for their future professional roles. Thus, students should participate as they would in the professional world. For example, if you are teaching a business student who also manages a small business, prompt them to think about how your subject might help them in the future. Group tasks parallel real-world work, and foster generic graduate attributes such as problem-solving, planning, technological capability and independent management of time, learning and development.

*Help students to develop approaches in self-regulated learning.* Many students will have learned in a regimented, highly supervised way at school, others (particularly mature-age students) will have had no formal coherent learning over a number of years. Assist them to organise study with UTS Online and email, and ensure they know where to go for information and are certain about what is due and when, and how to research and write assessments. They need to understand how much time a task might take.

*Help students to manage time.* A major priority for successful transition, the ability to manage work to meet deadlines is also an essential professional skill. Transitioning students may not only be unused to deadlines, but may be time-poor. Be aware of potential issues, provide clear guidelines and be flexible where appropriate. Direct students to UTS support services, if necessary (see [Resources](#) on page 37). Develop activities that incorporate time management for timely submission of assessment tasks. Prior preparation is critical for both study and work.

*Foster professional identity through reflective writing.* Reflection is looking back on something we have experienced, read or learned. Explain that reflection is a key activity in their profession life. If reflection is not part of the subject's assessment, use reflective activities, such as keeping a reflective diary in class, as a tool for student motivation. In the first class you could prepare students for regular reflection with leading what, why, who, how, when and where questions. For example: What went right or wrong? What did I learn from all this? What would I do differently another time? How will this learning experience serve me personally in the future? How will this improve my learning and professional practice?

## TEACHING TIPS

- Discuss concepts and stages of 'development' and 'becoming': from student to professional; *novice to expert, apprenticeship, internship*. Give real world examples students can relate to and draw parallels with their own situations.
- Have students interview each other and list what they would expect from a professional in their discipline, work environment or context.
- Ensure your students obtain a UTS Student Diary from the UTS Union, or utilise their own. Encourage them enter assessment and other important subject dates.
- Have students list separate tasks for assignments, plot a time-line or plan for assignments. The UTS [Library Assignment Survival Kit](#) is a great resource for student planning.
- Set aside 15 minutes in the first few classes for reflective journal writing to help encourage this habit. Collect regularly and review as a valuable monitoring of students' professional development and understanding of subject concepts.

# DIVERSITY

---

## **1. Be prepared for the diversity of the cohort, particularly in your own class.**

UTS first-year students are both domestic and international, with the majority entering directly from school, from other universities, and from 'pathways' such as TAFE. Some may be the first person in their family to attend university, have non-English-speaking backgrounds (NESB) and have a range of socio-economic status backgrounds. Others may be mature-age students, with considerable work experience. Some students may be coping with physical or mental disabilities, financial difficulties, moving from home, accommodation problems, or work, family and time commitments. Consequently, this cohort contains students with varying expectations and preparedness. *For details see <http://www.pqu.uts.edu.au/uts-statistics/uts-facts-and-figures.html>*

*Celebrate this diversity.* Welcome students and promote inclusiveness. Being inclusive means knowing each others' names, backgrounds, needs, learning styles, and previous experience/knowledge. Students can introduce themselves to each other and share with the class or in small groups. Inclusivity assists good communication within the class, but be aware, as a consequence of diversity, that some students may be uncomfortable disclosing personal information in front of the class and prefer to work in small groups.

# TEACHING TIPS

- To understand the diversity in your cohort, ask the students about their course, their goals for studying at university, first language, school experience, past university experience, work experience, carer responsibilities, travel time to uni, working (hours), etc.
- Consciously try to be inclusive in class, by reviewing tactics and language used for seeking and giving opinions, agreeing and disagreeing, interrupting, persuading, emphasising and asking for clarification.
- Create opportunities for students' voices and opinions when you are preparing your class materials, to maximise the students' contribution.
- Set up 'buddying' where appropriate, in pairs, or in supportive trios or even quartets as they emerge after a week or two. Observe students who seem to be getting on well, or, if likely buddies aren't evident, introduce students who live near one another, or whose strengths, background or experience might be complementary. What's important is that the buddies like, trust and help one another.

---

## **2. Keep an open mind about students' entry-level knowledge**

*Draw on your students' knowledge and experience* as part of your classroom activities.

*Address the varied preparedness of the diverse cohort.* Specific support activities (such as academic reading and writing tasks) and assistance with planning and self-management (including time and stress management) can make a difference.

*Students with diverse linguistic background.* Students may be challenged particularly those who have difficulty with English. For support and advice on how you can incorporate strategies to help students with these difficulties, contact your ALL (Academic Language and Learning) developer. You can also refer students with English language difficulties to HELPS who offer support in writing, reading and speaking. Library staff can also help students with research and subject related resources.

*Build confidence in students.* Scaffold their learning by guiding them through carefully designed and appropriate activities suitable for your cohort. Praise their efforts when deserved to give them confidence and indicate areas where students need to develop or be better informed. At all times in addressing preparedness problems, respect your students and try to know them better. Getting to know students helps them to feel valued and respected, and thus to be more motivated.

*Celebrate their progress rather than immediate achievement.* It is important that you don't always honour those who have 'got it' and that all students know their growth is important.

# TEACHING TIPS

- To understand the variety of background knowledge students have in your discipline area, survey students or provide diagnostic tests to identify current entry knowledge.
- Evaluate learning needs via discussion ideas on the whiteboard, or a “talking wall”, where students anonymously stick up comments or answers on post-it notes (perhaps during the break when you aren’t looking). Typical questions to focus on their learning needs include:
  - Why they are doing the subject (not necessary for core units)?
  - What they expect to learn?
  - How can they be helped to achieve their goals?
  - How they like to learn?
  - How much time will they give to study this subject?

---

### **3. Offer strategic support at critical times**

*Be proactive and offer strategic support in a positive way and help students to become independent learners.* Through clearly communicating information, being approachable, appreciating *all* students' contributions to classwork, designing appropriate learning resources along with constructive formative feedback, will optimise the student experiences.

*Offer academic and personal support strategies.* Be alert to difficulties that students are experiencing especially early in the semester, in study, culturally or socially. If possible, be flexible with students who have, for example, family or external problems and who may need to postpone assessment due dates. Direct students with special needs, particularly students living away from home, students with a disability, and NESB students, to UTS student services for appropriate advice. Students should know your classroom is a safe learning environment. See [Resources](#) on page 37 for the list of student services. For further information on teaching strategies for diversity in the classroom, contact your faculty ALL developer or IML academic developer.



# TEACHING TIPS

- Ensure students know how and when to ask questions anonymously on the discussion board, and to email in times of personal difficulty.
- Ensure students know they can obtain IT assistance, including borrowing lap-tops to take home, from UTS's IT division, <http://www.itd.uts.edu.au/services>. Some students may not own a computer.
- Encourage students to use student support programs: HELPs, Library and importantly [U:PASS](#) if it is available in your subject.
- Teach specific language for specific situations, for example, discussion, or role-play, to enable students to communicate effectively and confidently in class.
- Show students external websites that can be helpful for emergency hints about writing, such as Purdue University's OWL: <https://owl.english.purdue.edu/owl/>

# DESIGN THE IN-CLASS EXPERIENCE

---

## 1. **Promote a climate of support and encouragement**

*University learning may be different to the student's past experiences.* It is important that the student feels comfortable and supported in their learning. Get to know your students by name, and take an interest in student progress; be accessible and responsive; manage student enquiries quickly and effectively. Build a learning community and encourage out of class study groups to support independent learning strategies.

*Remember that your task is to facilitate learning.* Facilitating learning means encouraging students to seek learning outcomes—the knowledge, skills, attitudes and competencies expected of students who successfully complete a subject. Create a positive learning environment that aligns learning with classroom activities, and demonstrate how the assessment methods are designed to meet the subject's intended learning outcomes.

*Be patient.* First-year students often have difficulty adjusting to the university classroom and sometimes exhibit difficult, attention-seeking behaviour, or apparent unwillingness to participate, or very limited attention or participation. Students can easily feel unimportant or dismissed in the first few weeks; so welcome what they have to say and praise their efforts to bolster their motivation and confidence in contributing to the class.

*Facilitate and encourage contributions from all students in your class.* Some students are more willing than others to contribute verbally whilst others approach learning in different ways.

# TEACHING TIPS

- As soon as possible, learn everyone's names and make sure everyone in the class knows each other's names. Get students to create their own name tag with a personal logo – Provide students with an A4 sheet of paper and marker pens – Ask them to fold the A4 paper in three to form a triangle and write their names on two sides so everyone can see it. Have students design a personal logo for their tag or marker and explain it to the group. Design one for yourself as an example! Collect tags or cards at the end of class and re-use in your next class with these students until everyone knows everyone else.
- Be available and approachable. Students need to know that they have your support, so listen patiently, responding promptly and appropriately. Remember you can offer a certain amount of flexibility within appropriate boundaries.
- Support quiet students and control dominant students. Limit them to a certain number of questions, answers or comments, and target quieter students in a friendly way to encourage their participation. Write comments on the board (or have a student write them) to raise the status of the contributions.
- Refrain from supplying answers; keep rephrasing questions until answers are forthcoming.

---

## 2. **Keep the focus on students: Take an “Active Learning Approach”**

*Student-focused or Active learning.* Student focus means that as active learners, students are expected to take responsibility for their own learning and engage with tasks— but remember, since transition is ongoing, the student focus needs time to grow. Scaffold learning activities to develop student understandings of the content matter – such as peer discussion (pairs or groups), role playing, debating, assessing case studies or completing short written or mathematical exercises. Student-focused active learning develops critical thinking, analysis, problem-solving and communication skills. Design activities to include quieter students and second language learners. ALL developers can also offer advice and feedback on how to facilitate this. More information on making active learning work - <http://www1.umn.edu/ohr/teachlearn/tutorials/active/recommendations/index.html>

*Help students to connect previous experiences with subject content.* This shows students’ experience as valuable and relevant, and helps them to actively learn from one another. Your acknowledgement of the value of their contribution supports their sense of work and motivates more active learning.

### **What is flipped learning?**

In the ‘flipped education’ model, rather than attending lectures, students access digital resources and undertake preliminary tasks prior to coming to classes where they engage in collaborative, mentored activities. See <http://www.pinterest.com/Learning2014/flipped-active-learning/>.

# TEACHING TIPS

- Regularly refer to the [UTS Model of Learning](#) and [Bloom's Taxonomy](#), and to your role as a facilitator, to help students focus and re-focus on their role as creative thinkers and active learners.
- Introduce non-literary or alternative activities, such as using software, drawing or building something, to exercise the imagination and enable expression, which do not require advanced language skills. This challenges and develops the thinking skills of high achievers and strugglers in a fair way.
- Elicit, or run discussions on how new concepts fit (or not) with past learning.
- Provide opportunities for students to recount interesting experiences or offer creative suggestions arising from previous work that can make new content more meaningful and demonstrate they can contribute effectively to class work.
- Incorporate practice activities. For example, if you want students to learn how to use the UTS Library database, a learning activity could involve an information session with library staff, then practice using various databases to locate information in class.
- Have a student sum up what has been covered/learnt at the close of each class. Let students know at the start that you are going to choose someone, and choose a different student each week. Give the student constructive feedback on the sum-up.
- Reinforce important information with follow-up quizzes. For example, items from the Subject Outline presented in week 1 are tested in a quiz in week 2.

---

### 3. Provide effective scaffolding for classroom activities

*Help students manage information overload throughout the semester.* Give students a chance to write down notes and think about what they are learning. If possible give students handout notes or have the material available online so that students can engage with it.

IML (<http://iml.uts.edu.au>) has resources that can assist you with preparing effective support material.

*Be aware of the differing levels of preparedness and skills in your class.* Some students need more detailed explanations and structured tasks than others, while other may need more challenge. Use individual and group work activities, as suggested in Tips below.

#### TEACHING TIPS

- Use peer learning for in-class tasks where possible. For example, have students check their understanding or explain a concept by exchanging Post IT notes with a partner.
- Always provide individual formative feedback opportunities, to enable students to value their own achievements instead of comparing themselves with others.
- Design worksheets to address particular problems (such as referencing and citation styles). Students do them individually and mark one another's, or in groups and discuss answers. Or set them for homework and review answers the following week.
- Model concepts and formats clearly to give students certainty about approaching in-class tasks and assessments: supply exemplars, use colour to demonstrate important features on-screen. Ensure understanding by encouraging pair and then class discussion on ideas not understood.
- Talk to an Academic Language and Literacy (ALL) lecturer at IML for ways to support students at different levels.

---

## 4. Design the right sequencing and activities

*Focus student attention on key learning outcomes.* Course content can be dense and concentrated. It may not be possible to cover everything within class time. Review the weekly lecture material to choose the most important key points, probably three or four, to cover in class and assign the remainder for homework or on-line discussion. Allocate time in the following week for brief recap or discussion on what was assigned out-of-class (see [‘What is flipped learning’](#), pg 18). When tutoring for the first time it is sometimes hard to predict how long an activity will take. Start with key activities and adjust timing if necessary. Prepare additional activities in case students finish early.

*Close your class actively.* At the end of your weekly class, elicit the main points through class activity. Allocate a few minutes for students to identify and state actions for the next session and be available for further discussion if necessary. Involving students in the close of the session refocuses their attention, possibly through one minute exercises as given in Tips below. Students are less likely to start packing up early if there is a structured close to the session.

### TEACHING TIPS

- Explicitly discuss the links between key points or concepts and learning outcomes of the subject and Graduate Attributes each week.
- Have discussions about how concepts or issues being covered might differ from or be similar to what students have previously learned.
- At the end of the class, ask students for short written reflections on the class, collect and address in class or in the next session. Alternatively have five-minute pair or group discussions on these questions with a different group reporting back every week or assign a group each week to sum up what has been learnt.
- Obtain feedback on the class in general by asking students to write or post anonymously what they liked or disliked most about the class, or to suggest changes.

# ENGAGEMENT

---

## **1. Engage students in the content of your discipline**

*Engage students with discipline context through active learning.* Have the students engage in the material they study through reading, writing, talking, listening, and reflecting. Active learning stands in contrast to “standard” modes of instruction in which teachers do most of the talking and students are passive. This approach can also be considered as student focused learning – See Design the in-class experience on page 18.

*Encourage student enthusiasm for the discipline content.* Communicate your own passion about the subject and why it is important to you, and deal thoughtfully with questions about individual assessment tasks. When engaged with the subject, students are more likely to think of themselves as members of a learning community, one which has its own special ways of knowing and socialising (Hyland, 2009). By convincingly communicating the subject’s value you promote the identify of the discipline they are studying, build student sense of belonging and support their transition towards a deeper approach to learning.



# TEACHING TIPS

- Stimulate discussions by inviting controversy. Have students anonymously record points of disagreement with you on post-it notes, collect them and use as discussion starters. Or brainstorm ideas about specific topics (get a student to scribe), perhaps using the ABC Brainstorm, in which every idea has to start with a different letter.
- Pose a problem for students to consider individually, then collaborate in pairs to prepare a response and share their ideas with the class.
- Lighten up with a TV-style quiz. Teams consider a short problem and pick an individual to explain the answer. All team members get a point if the answer is correct. Or do this in pairs; one student gives the answer and the other explains. Note the marks on the board and award a suitable prize.
- Organise teams to compete in explaining/solving a scenario within a strict time limit, using the whiteboard as a drawing resource only. Award a suitable prize for the most effective.

---

## 2. Engage students with their peers

*Foster peer learning and collaboration.* In this way, students learn with and through peers. Helping students to get to know one another and engage with peers is a major priority in supporting their active involvement with the subject and the university community, and for academic success. Peer learning provides key support for success for students from diverse backgrounds, such as low socio-economic status (LSES). Surveys (Devlin, Kift, Nelson, Smith & McKay, 2012) confirm that students can be highly effective teachers and motivators of one another and enjoy peer-learning.

*Understand that loneliness and alienation may be major issues for transitioning students.* This is particularly so if students live far from university (as many UTS students are forced to do). A recent study (Scutter et al 2011) revealed that 25 per cent of first year students knew no-one else at their university when they started university study. Loneliness and lack of connection is a major cause of unsuccessful study and dropping out.

*Support students in formal assessment group projects.* Group work, also known as team-work, is an essential part of studying at UTS - it promotes active, responsible and collaborative peer learning, and friendships. Group work also creates situations that, to an extent, resemble the professional workplace. However, students often find group work problematic for social and organisational reasons. Constructive team-building activities and discussion can help. Tell students about UTS's facilities for groups to work together, including small meeting rooms and large screens for presentation preparation. To assist with group work, a teachers' resource is available from the IML office: *Enhancing experiences of group work: A resource kit for managing and motivating student groups*, also at <http://www.iml.uts.edu.au/learn-teach/groupwork/intro.html> . To help students understand assessment through group work, refer to this UTS Teaching and Learning link: <http://www.uts.edu.au/research-and-teaching/teaching-and-learning/assessment/assessing-group-work>.

# TEACHING TIPS

Encourage students to meet each other with icebreakers in the first class:

- Students arrange themselves in lines according to where they live, so they meet near-neighbours, and can exchange contact details.
- Students introduce themselves in pairs, then as threes, then as fours.
- Form small, informal (and changing) groups for discussion activities. Students wear colour badges in four or five colours; they can form discussion groups with the same colour, then with different colours.
- Foster friendships across the semester: have students work collaboratively, in pairs, or in informal groups for activities not connected with formal group assessment projects.
- Set up permanent buddies if possible, so students can rehearse mini-presentations within a buddy-pair, in or out of class, before presenting individually.
- Arrange the classroom for friendly communication: Clustering tables for 3-6 students is good for small group tasks and enables students to easily swap places across groups; U-shapes are good for small classes because they enable seminar-style interaction and facilitate pair work. Conduct a quiz in which students have to name other students.
- Use a discussion board or set up (if appropriate) a facebook group to create a learning community.

---

### **3. Encourage students to engage with you as their teacher**

*Ensure students know who you are.* Make personalised contact as soon as possible, provide information about yourself that they can relate to, and explain your role as facilitator. Support this with appropriate body language: don't stand at the front, come right into the class, sit with groups, act as an involved class participant.

*Ensure students feel that, as a facilitator, you are approachable and helpful.* Some come from cultures where teachers and lecturers are remote and authoritarian. Besides showing your real enthusiasm for the subject, you need to convince students of your commitment to them and providing a relaxed atmosphere.

*Listen to students.* Don't rush them with answers or comments in class, but welcome their contributions, show patience and comment constructively. If students raise a problem, in class or privately, try to take time to listen seriously or read an email reflectively. If you don't have time, nominate a suitable time to listen and discuss more fully. In class, students should feel comfortable listening to you and each other and asking and answering questions.

*Understand that pedagogical good practice takes time but is rewarding.* Devlin et al (2012, p. 22) comment that, to their knowledge, official acknowledgement of the extra time that tutors provide students is lacking across universities. However, as a dedicated professional, accept that, at times, some students may require extra assurance, attention and time. Students come from such diverse backgrounds, and have varying expectations of university study. Your support and empathy may be essential for their growth and success.

*Let students know your own workload commitments.* Students don't expect 24/7 attentions, but, still, you need to specify times for face-to-face individual consultations, checking email correspondence or other contacts. Explain your research and preparation workload, and what marking and feedback for written assessment involve and how long this takes (some students will be surprised!).

*Feedback and feed forward.* Encourage the constant flow of information, discussion and feedback back and forth between you and your students, from the very first class, in your conversations, tasks and reflections.

## TEACHING TIPS

- Email students on your class list before the first class: introduce yourself, welcome them to the subject, confirm the time and place of the first class and say you're looking forward to meeting them. Or, email them after the first class, say how much you enjoyed meeting them, and flag next week's activities.
- Always address students by name and relate to them as people; be aware of extra-curricular needs, and offer relevant advice in relation to careers and other academic interests. Be available within appropriate boundaries if needed.
- For wider participation, pre-empt major questions, so students can prepare an answer, if necessary, prior to class.
- Discourage electronic dictionaries because this inhibits interaction and language practice, and the information is often contextually inappropriate.
- Encourage all your students to listen, ask and answer questions. When eliciting, always allow students sufficient time to formulate a reply and get the courage to raise a hand (this is particularly important for Non English Speaking Background students) and ask their question or comment. If students do not reply to a question, rephrase it, or give alternative answers for them to consider.
- Make it clear that if students don't understand something, they need to raise it in class, as others might need to know. Always provide courteous and constructive acknowledgement to answers or comments, even if they are off-track or mistaken.
- Remember your facilitation role. During group activities, try to sit with each group, draw them out, and energise discussion, if necessary.
- Email every week after class, recapping the main points, reminding students of what's due, and flagging the following week's work.

---

#### **4. Encourage students to engage with the university community**

*Link students to the broader university wide activities.* Many students, particularly part-timers, visit university only for classes. It's important for all students to realise they belong to the wider community and that the university presents opportunities to balance and enhance their lives.

### **T E A C H I N G   T I P S**

- Attend orientation events if possible, to meet students away from the classroom.
- Inform students about the wide range of clubs and societies and encourage them to join one or two; sports clubs are particularly valuable for NESB students as friendly environments in which to improve their English.
- Stress the ideas of 'becoming' and 'developing'.
- List support services that are available to address non-academic problems such as housing and health.
- Draw attention to the UTS website and the faculty page, and notices of free presentations on topics relevant to their subject or that are not especially relevant but that you think they will enjoy, such as concerts, art shows and lectures by outside speakers.

# ASSESSMENT

---

## **1. Provide early low-stakes formative feedback**

*Formative feedback assessments* are used to monitor a student's learning and generally have low or no grade value. They provide feedback to both tutors and students on what is being learnt or may need greater attention. Examples of formative assessment could be drawing a concept plan of a project or preparing a draft report for peer assessment. Formative feedback can build student confidence and reduce anxiety, and enables the student to feed-forward directly into future assessment tasks. It also allows the student to self-regulate their learning thereby building independence in learning.

*Utilise early low stakes formative feedback in tutorials.* Set formative and diagnostic tasks in the first three or four weeks. This allows you and your students to gauge performance and if necessary take action such as withdraw prior to census, attend HELPS or U:PASS or allocate more time to studies. Base early tasks on building skills using relevant existing knowledge. These are helpful for all students and particularly NESB students.

*Let students know what feedback you are able to provide to them prior to assessment submission.* Students come to university with varying expectations of what feedback they will be provided. Recent research indicates that school leavers expect that assignment drafts be reviewed by the tutor and be given feedback. This may not be the case in your class. Demonstrate how the formative feedback provides other ways of providing students feedback.

# TEACHING TIPS

- Explore with your subject coordinator various means of early formative approaches to use in your class.
- Formulate your own feedback templates for speedy responses to small tasks, such as two-minute presentations, having agreed the criteria with students beforehand.
- Explicitly tell students that they need to apply formative feedback to subsequent assessments. For example, if you conduct weekly tests, when marking, consider how your comments can assist students in future assessments.
- Ask students to prepare mini presentations or two-minute talks (e.g. on a career the student wishes to pursue; summarising a journal article and so on) to enable an early first speaking experience.
- Build in formative challenges to give student feedback. For example, ask students to locate a particular type of article through the library database and then ask them to summarise one section or answer a list of general questions.



---

## **2. Communicate assessment requirements clearly and consistently**

*Make sure students understand the concept of criterion-referenced assessment.* It is important that students understand work is marked to criteria set for the assessment task. Criteria identify specific characteristics that contribute to the overall assignment and link directly to the learning outcomes of the subject. Students directly from school will be familiar with criteria referenced assessment, however, other students may be familiar with other forms of assessment design such as normative based assessment (student grade is the result of comparison with other students and not criteria).

*Ensure that students obtain a clear understanding of assessment requirements.* In class, clearly and explicitly address the assignment task, due dates, word count and how the criteria frames their response. Prepare students to understand criteria through the use of past exemplars which peers may mark together in class and grade against the assignment criteria (using technology such as Review, SparkPlus, or physically with grade cards). Groups report back to the whole class and the criteria can be more deeply analysed. This is a particularly good, interactive learning opportunity for first year, diverse students. It promotes understanding of grading standards and of the step-by-step construction of important academic written genres. Additionally, debating the criteria grade in class stimulates active learning.

HELPS provides advice on assessment tasks.

## TEACHING TIPS

- Ensure students understand how their assignments will be assessed against criteria, and what constitutes a poor or excellent assignment, and why.
- In groups, get students to evaluate exemplars against official criteria demonstrating the concept of benchmarking.
- Explain to NESB students that faulty grammar in itself need not prevent a high grade.
- Encourage students to consider how the different grade levels in the [UTS Grade Descriptors](#), relate to the kinds of thinking they need for academic work.
- Be aware that students particularly mature age and first-in-family may have carer responsibilities and need supplementary support to promote equity.

### 3. Make class time available to discuss assessment feedback

*Feedback for learning.* “Feedback helps students to improve and prevent them from making the same mistakes again. It is useless if feedback comes back too late in the semester” <http://www.iml.uts.edu.au/assessment/feedback/index.html> . Thus feedback needs to be timely, relevant and clearly understood.

#### TEACHING TIPS

- In class, provide time-effective feedback/feedforward:
- Give a general oral formative feedback report to the class after a formal assessment, as well as private feedback to individuals.
- Give generalised written summaries of strengths and weaknesses to groups
- Ensure your hours of availability and contact details are clear to students who might want more individual feedback.
- Be explicit about why a particular topic choice, introduction, paragraph, or stage of argument, is effective and why a piece of writing rates a particular grade.
- Be mindful of assessment language when communicating with students; speak about *meeting criteria*, not *failing*. If there is an Assessment for Professional Development, include ‘take-up of feedback’ in its criteria and assign a few marks as an incentive.

# EVALUATION AND MONITORING

---

## 1. Monitor individual students' learning needs and provide targeted 'just-in-time' support

*Monitoring* is the tool that enables you and the student to assess their participation and progress throughout the semester. This awareness allows you to provide targeted 'just-in-time' support. These targeted responses could help students reflect on their own ways of learning, and how to learn as an independent learner. Be aware of the learning support services available when students are not acquiring the basic academic or discipline skills. U:PASS is particularly useful support.

### TEACHING TIPS

- Be alert for signs of non-engagement: patchy attendance, silence in class, non-contribution to group work, friction within a group, careless work, and late or non-submissions without prior notice. Non-contribution to class and group work can indicate language difficulty, lack of confidence or depression.
- Check workbooks frequently and regularly for indications of independent study and your ongoing awareness of students' learning needs. Scribbled notes, highlighting, completed exercises and increasingly dog-eared appearance are good signs of independent use of the workbook.
- If your monitoring has picked up the beginnings of a pattern of problems, make time (perhaps in the break) to chat in a friendly but serious way to students with poor attendance, participation or unsatisfactory results.
- Monitor use of UTS Online, Library site access and use of e-communication tools as indicators of individual engagement.

---

## 2. Reflect on learning in the subject

*Give students and yourself opportunities to evaluate learning and teaching.* Evaluation of professional and academic development is an important part of professional identity. It is also essential in the ongoing transitional experience, as the ability to self-monitor and evaluate develops over time. Thus, you and your students need to reflect on what you take from the class experience and how it can inform your professional future.

*Enable students to reflect on their learning.* Familiarise them with reflection language in the first class, and enable them to reflect and monitor themselves by keeping reflective diaries; they could use the student diary, buy a cheap exercise book, or use space in the subject workbook, if provided.

*Take time to stop, reflect, evaluate and replan your teaching approach.* Revisit what you have done weekly, or over the semester to process learning and experience, to evaluate what was learned, to decide on what can be improved, and to formulate new ideas to try out. The weekly tutorial outline supplies a neat and convenient framework to explore your ideas, decide what worked well and what did not, and what you might do differently next time. You gain a better understanding of your teaching, and build on your experience for future semesters.

# TEACHING TIPS

- Encourage students to set aside 10-15 minutes weekly for entries in a 'learning diary', or set it as homework (it could attract marks within a Professional Development Assessment).
- Provide an 'honesty box'. Students put in problems they have identified from reflection but are too nervous to raise orally in class. You can monitor their needs and address them anonymously next week.
- Encourage students to complete the Student Feedback Surveys (SFS), which collects student feedback on subjects and teaching staff University-wide. SFS results will be emailed to you.
- In the final class ask students to write a letter to a future student, reflecting on what they have learnt, or ask them to reflect anonymously about their experience in your subject over the semester. Careful consideration of your students' reflections can give you illuminating insights into what has worked well in this first year learning experience.
- Be aware of the broader first year program in your course and the evaluation results for your subject. Talk with staff members about the key areas identified for improvement and staff development. The pre-semester meeting with the subject coordinator and other tutors is a good place to ask about this.
- Use weekly plans for reflection notes and set aside time to write up more fully at intervals.
- Be aware of your cultural assumptions and attitudes when evaluating students.
- Ensure you access the results of your class's SFS survey; a link to your personal results will be emailed to you and can provide very useful feedback to improve your teaching.
- Ask a peer to observe your class and review your teaching.

# RESOURCES

## Student Academic Support:

HELPS: Building 1, Level 3, Room 8 (Higher Education Language & Presentation Support). Provides English language and academic literacy support to students via non-award programs and services such as workshops, individual assistance, writing clinic, Conversations@UTS: <http://www.ssu.uts.edu.au/helps>

Institute for Interactive Media and and Learning (IML)

<http://www.iml.uts.edu.au/>

Library: Corner Quay St and Ultimo Rd. A study haven for students. Assistance with researching assignments and referencing and academic skills <http://www.lib.uts.edu.au/>

Resource Centre: Building 2, Level 3, Room 3.11. For all your presentation, printing and copying needs. Copycard, EFTPOS and credit cards accepted. Part of IT Division. [http://www.itd.uts.edu.au/services\\_facilities/computer\\_facilities.html#resource](http://www.itd.uts.edu.au/services_facilities/computer_facilities.html#resource)

Students' Association: Building 1, Level 3. Official recognised voice of the students at UTS. Services: Peer Tutoring Program, Second Hand Bookshop, Student Representative Council, Food Co-op, Queer Space, Women's Room, Student Advocacy, Student Legal Service

<http://www.sa.uts.edu.au>

U:PASS is a student learning program designed to assist students who are studying subjects that are perceived as difficult or that historically have a high failure rate.

<http://www.uts.edu.au/current-students/support/upass/upass>

## Learning Centres:

Engineering Learning and Design Centres: CB01.25.15, CB02.06.39

[http://my.feit.uts.edu.au/pages/support\\_and\\_services/learning\\_and\\_design\\_centres](http://my.feit.uts.edu.au/pages/support_and_services/learning_and_design_centres)

Mathematics Study Centre: CB01.16.15

<http://www.uts.edu.au/current-students/science/maths-study-centre>

## **Student Administration Support:**

### **Student Centres:**

Arts and Social Sciences, and Engineering – Tower Building Level 4 (near main entrance)

Design Architecture and Building, and Science – Building 6, Level 4, 702-730 Harris St

Education Nursing Midwifery and Health, IT – Building 10, Level 2, 235 Jones St

Business and Law – Building 5, Block C, Level 1 (ugrad), Building 5, Block B, Level 5 (postgrad): <http://www.sau.uts.edu.au/contact.html>

UTS International: Building 1, Level 3A. Assist all international students except International Exchange (FASS Student Centre, Level 4, Tower). Information and advice on courses, fees, entry requirements, application procedures, visa extension, enrolment, scholarships

<http://www.uts.edu.au/international/index.html>

## **Student Support (Social and other):**

Orientation and the Peer Network: Become one of the “Orange shirt” Peer Networkers who volunteer to help students at orientation. <http://www.ssu.uts.edu.au/peernetwork/index.html> & <http://www.orientation.uts.edu.au>

Student Representation: There are a range of student representative opportunities <http://www.ssu.uts.edu.au/representation/index.html>

University Union: Building 1, Level 3. Provides a huge range of services and facilities. Responsible for great services, programs and events on campus. Union sports office, sports, recreation clubs <http://www.utsunion.uts.edu.au/>

Union Sports Office, Gym: Harris St Building 4. Sport and fitness centre. State of the art gym equipment and yoga, aerobics, and martial arts classes. Union sports office, sports, recreation clubs <http://www.utsunion.uts.edu.au/fitness/>

AccessAbility: Website and information for UTS students with any form of disability [www.accessability.uts.edu.au](http://www.accessability.uts.edu.au)

Build: Beyond UTS International Leadership Development program [www.ssu.uts.edu.au/beyonduts](http://www.ssu.uts.edu.au/beyonduts)



Careers Service: Building 1, Level 3A. Provides career-related help services, career counselling with experienced counsellors, including resume checking and interview skills <http://www.ssu.uts.edu.au/careers>

Childcare: UTS Childcare services: <http://www.childcare.uts.edu.au/>

Co-op Bookshop: 3 Broadway. Corner Broadway & Harris St & Building 10. Stocks a range of general titles, calculators and latest computer software, textbooks for timetabled courses. <http://www.coop-bookshop.com.au/>

Equity and Diversity Unit: Building 1, Level 17. Provides assistance to students and staff who feel they have suffered discrimination, victimisation or harassment. <http://www.equity.uts.edu.au/index.html>

Housing Service: Building 6. Helps students find a place to live at UTS residences or in private housing. <http://www.ssu.uts.edu.au/housing/>

Info. Tech Division (ITD): Broadway: Building 2, Level 4, Room 412. Haymarket: Building 5, Block C, Level 1, Room 41. Assist with IT related problems. <http://servicedesk.uts.edu.au>

Jumbunna Indigenous House of Learning: Specialised academic and pastoral support and referral for UTS indigenous students, Level 6, Building 1. <http://www.jumbunna.uts.edu.au/students/index.html>

Multi-faith Room: Building 2, Level 3, Room 16, near Students' Association. Assist in personal and spiritual growth, and to foster an understanding of and appreciation for the diverse religious and spiritual life of the University community. Part of Student Services Unit. <http://www.ssu.uts.edu.au/chaplaincy/index.html>

Security: Building 1, Level 4 Foyer. Building 5, Library. Help with personal safety on campus. <http://www.fmu.uts.edu.au/security/>

SOUL: Soul is a leadership program focussing on discipline specific leadership and volunteering opportunities in the local community or not-for-profit sector. <http://www.ssu.uts.edu.au/soul/index.html>

Student Ombudsman: Building 2, Room 402. When all else fails... Provides assistance/representation for students who feel unfairly treated by the University, or in disagreement with an individual, office, University department or anything related to the University: <http://www.ombuds.uts.edu.au/>

Student Services Unit: Level 6, Building 1. Personal, academic or financial issues, health services, special consideration, counselling, financial assistance, multi-faith and chaplaincy, special needs and disability needs  
<http://www.ssu.uts.edu.au>

## **Support for Staff:**

Childcare: UTS Childcare services: <http://www.childcare.uts.edu.au/>

Co-op Bookshop: 3 Broadway. Corner Broadway & Harris St & Building 10. Stocks a range of general titles, calculators and latest computer software, textbooks for timetabled courses. <http://www.coop-bookshop.com.au/>

Info. Tech Division (ITD): Broadway: Building 2, Level 4, Room 412. Haymarket: Building 5, Block C, Level 1, Room 41. Assist with IT related problems.  
<http://servicedesk.uts.edu.au>

Institute for Interactive Media and and Learning (IML)  
<http://www.iml.uts.edu.au>

Library: Corner Quay St and Ultimo Rd. A study haven for students. Assistance with researching assignments and referencing and academic skills <http://www.lib.uts.edu.au>

Survival Guide for New Academics  
<http://www.iml.uts.edu.au/develop-career/survival.html>

## **External Resources for Staff:**

Blooms Taxonomy: <http://www.techlearning.com/techlearning/archives/2008/04/andrewchurches.pdf>

First Year Higher Education: <http://fyhe.com.au/current-activities/resources-for-universitie/>

The University of Melbourne: [http://fyhe.com.au/wp-content/uploads/2012/11/Trans1stYearResource\\_Final-2.pdf](http://fyhe.com.au/wp-content/uploads/2012/11/Trans1stYearResource_Final-2.pdf)

The Melbourne Sessional Teachers' Handbook: <http://www.cshe.unimelb.edu.au>

Purdue University's OWL: <https://owl.english.purdue.edu/owl/>

## BIBLIOGRAPHY

- Biggs, J. 2003, *Teaching for quality learning at university: What the student does*, 2nd edn, Society for Research into Higher Education, Open University Press, Buckingham, U.K.
- Biggs, J. & Tang, C. 2007, *Teaching for Quality Learning at University*, 3rd edn, Buckingham: S.R.H.E. and Open University Press.
- Bloom, B. S. 1956, *Taxonomy of educational objectives, handbook 1: Cognitive domain*. Longmans Green, N.Y.
- Boud, D. 1995, *Enhancing learning through self-assessment*, Routledge, London, U.K.
- Butler, D.L. & Winne, P.H. 1995, 'Feedback and self-regulated: a theoretical synthesis', *Review of Educational Research*, vol. 65, no. 3, pp. 245-281.
- Breslow, L. 1989, *Teaching Teamwork Skills*, MIT Teaching and Learning Laboratory, viewed 24 November 2012, <[http://fsi2011.homestead.com/Teaching\\_Teamwork\\_Skills.pdf](http://fsi2011.homestead.com/Teaching_Teamwork_Skills.pdf)>
- Chickering, A. & Gamson, Z.F. 1987, 'Seven principles for good practice in undergraduate education', *AAHE Bulletin*, vol. 39, pp. 3-7.
- Dufresne, R., Gerace, W., Leonard, W., Mestre, J., & Wenk, L. 1996, 'Classtalk: A classroom communication system for active learning', *Journal of Computing in Higher Education*, vol. 7, pp. 3-47.
- Glaser, N., Hall, R., & Halperin, S. 2006, 'Students supporting students: The effects of peer mentoring on the experiences of first year university students', *Journal of the Australia and New Zealand Student Services Association*, vol. 27, pp. 4-19.
- Hawk, T.F. & Shah, A.J. 2008, 'A revised feedback model for task and self-regulated learning. *The Coastal Business Journal*, vol. 7, no. 1, pp. 66-79.
- Hughes, C., Toohey, S., & Hatherley, S. 1992. 'Developing learning-centred trainers and tutors', *Studies in Continuing Education*, vol 14, pp. 14-27.
- Hyland, K. 2009, *Academic discourse*, Continuum, London, U.K.
- Ivanic, R., Clark, R. & Rimmershaw, R. 2000, 'What am I supposed to make of this? The messages conveyed to students by tutors' written comments', in M. R. Lea & B. Stierer (eds.) *Student writing in higher education: new contexts*, Open University Press, Buckingham, U.K, pp. 47-65.
- Kift, S., 2009, *Transition Pedagogy*, viewed 20 November 2012 <<http://www.fyhe.qut.edu.au/transitionpedagogy/firstyearcur/>>

- Lublin, J. 2003, *Deep, surface and strategic approaches to learning*, UCD Centre for Teaching and Learning, University College, Dublin, Eire.
- Michaelsen, L., Knight, A., Fink, D. (Eds.) 2004, *Teambased learning*. Stylus Sterling, VA.
- Nicol, D.J., & Macfarlane-Dick, D. 2006, 'Formative assessment and self-regulated learning: a model and seven principles of good feedback practice', *Studies in Higher Education* , vol. 31, no. 2, pp. 199–218.
- Prowse, S., Duncan, N., Hughes, J. & Burke, D. 2007, '‘... do that and I'll raise your grade’. Innovative module design and recursive feedback', *Teaching in Higher Education*, vol. 12, no. 4, pp. 437-445.
- Ramsden, P. 2003, *Learning to Teach in Higher Education*, (2nd edn), Routledge, London, U.K.
- Rhodes, C. & Nevill, A. 2004, 'Academic and social integration in higher education: a survey of satisfaction and dissatisfaction within a first year education studies cohort as a new university student', *Journal of Further and Higher Education*, vol. 28, no. 2, pp. 179-193.
- Taylor, J. A. 2008, 'Assessment in first year university: A model to manage transition', *Journal of University Teaching & Learning Practice*, vol. 5, no. 1.viewed on 21 November 2012, < <http://ro.uow.edu.au/jutlp/vol5/iss1/3>>
- Tobin, K., 1987, 'The role of wait time in higher cognitive level learning', *Review of Educational Research*, vol. 57, no.1, pp. 69-95.

---

## Notes

Julie Sparks, Isabelle Bennett, Alexandra Crosby, Kathy Egea, Neela Griffiths,  
Adam Aitken, Nicola Parker, Jo McKenzie

(Version 1, 2014)

This booklet has been produced by  
the Institute for Interactive Media and Learning (IML), UTS.

We acknowledge the contributions of the FYTE coordinators and the FYE  
advisory members.

Cover photograph by Adam Aitken,  
UTS First year Design Camp, Cockatoo Island, 2014.

We welcome and value your feedback.

Please contact:

Dr Kathy Egea  
Senior Lecturer  
UTS FYE Coordinator  
Institute for Interactive Media and Learning  
University of Technology, Sydney  
Tower Building 1, Level 27 Room 53  
PO Box 123 Broadway NSW 2007 Australia  
+61 2 9514 1720  
[Kathy.Egea@uts.edu.au](mailto:Kathy.Egea@uts.edu.au)