Bachelor of Engineering Practice (Honours): Critical Information Summary

The Bachelor of Engineering Practice (Honours) is no ordinary degree. It will give you countless opportunities to innovate, iterate and push the boundaries of your knowledge. You'll make things that people will actually use, deliver solutions that could change lives, and graduate with four years of work experience.

The structure and delivery of this degree makes it unique, so you might have questions about how it all works. Here are answers to some of the most common questions.

What is the Swinburne Engineering Practice Academy?

The Bachelor of Engineering Practice (Honours) is being offered by the Swinburne Engineering Practice Academy. The Academy is both a space for learning and a workplace, which means you can undertake your degree while also working on engineering projects. By accepting a place in the Bachelor of Engineering Practice (Honours), you are accepting a role as an Associate in the Engineering Practice Academy and a place in our Associate Development Program. We call our students Associates to recognise that they are not just studying engineering; they are also working with industry and community on real projects. Most of your work will happen on-site at the Academy, in our modern office and studio spaces. However, you will also have the opportunity to attend client sites if required for a project.

What's expected of me in the Bachelor of Engineering Practice (Honours)?

You will be working as a consultant on real projects from day one. Therefore, we expect you to act professionally from day one.

This includes:

- Turning up on time and attending all sessions
- Being a self-starter and initiating your work and learning
- Managing your time and meeting deadlines
- Delivering outcomes agreed with clients to schedule
- Presenting professionally, both in your manner, and in your choice of dress
- Being willing to engage with clients
- Being prepared to work with others
- Being prepared to manage multiple tasks and embrace change
- Embracing diversity and treating everyone with respect
- Committing to the Academy values
- Being willing to drive your professional and personal development
- Attending networking events
- Being engaged in all your learning
- Engaging in Academy committees.

What is the Associate Development Program?

The Academy's Associate Development Program is how the Bachelor of Engineering Practice (Honours) is delivered.

What to expect:

- Real engineering work
- Project rotations (4 rotations in each year) working with industry partners and community groups
- A strong focus on learning and working in teams
- Participating in the running of the Academy through Academy committees
- Professional development sessions
- Individual mentoring from industry professionals
- Professional networking sessions
- Opportunities to learn about other relevant disciplines such as project management, business acumen, and design thinking
- Opportunities to follow your passion
- Performance reviews instead of exams
- Relevant and practical skills
- Driving your own learning and career path
- Support from academic coaches, industry mentors and subject matter experts.

What not to expect:

- Exams
- Lectures
- Rigid expectations
- Straightforward challenges
- Paid professional placements.

What are the Academy's values?

Our values underpin everything we do. They have guided the design of this course, and guide how we interact with community, clients and each other. We want you to embrace our values as much as we do.

The Engineering Practice Academy values are:

1. Honesty through transparency
2. Diversity and inclusion
3. Collaboration with empathy
4. Excellence – individually and collectively
5. Sustainability through practice.

Course specialisations: an alternative to traditional majors

This course doesn't offer traditional majors such as 'civil' or 'mechanical'. Instead, you can choose to specialise in one of four emerging industry sectors. Each sector represents an important future direction in engineering:

1. Smart Cities applies digital technology to urban development, infrastructure and government services to improve efficiencies and ultimately raise the quality of life for residents. This sector will appeal to students who are interested in civil engineering and construction engineering.
2. Industry 4.0 combines the virtual (big data, digital technology) with the physical (3D printing, robotics, prototyping) to create a new approach to manufacturing. This sector will appeal to students who are interested in mechanical engineering, and robotics and mechatronics engineering.
3. Internet of Things and People refers to the wireless connectivity of products (no longer just computers) to the internet, which enables innovative solutions and improved efficiencies for businesses and individuals alike. This sector will appeal to students who are interested in telecommunications, electronics or software engineering.
4. Products Designed for People focuses on the creation of cost-effective, marketable products that use sustainable materials and fill a gap in the market or satisfy a customer need. This sector will appeal to students who are interested in product design engineering or biomedical engineering.

Do I have to pick my specialisation straight away?

In your first year, you will work on projects across each of the four areas. As you progress, you can start to specialise by choosing to work on projects relevant to your area of interest. You will receive career planning support, and advice from industry mentors to help you choose your specialisation.

Is this course accredited by Engineers Australia?

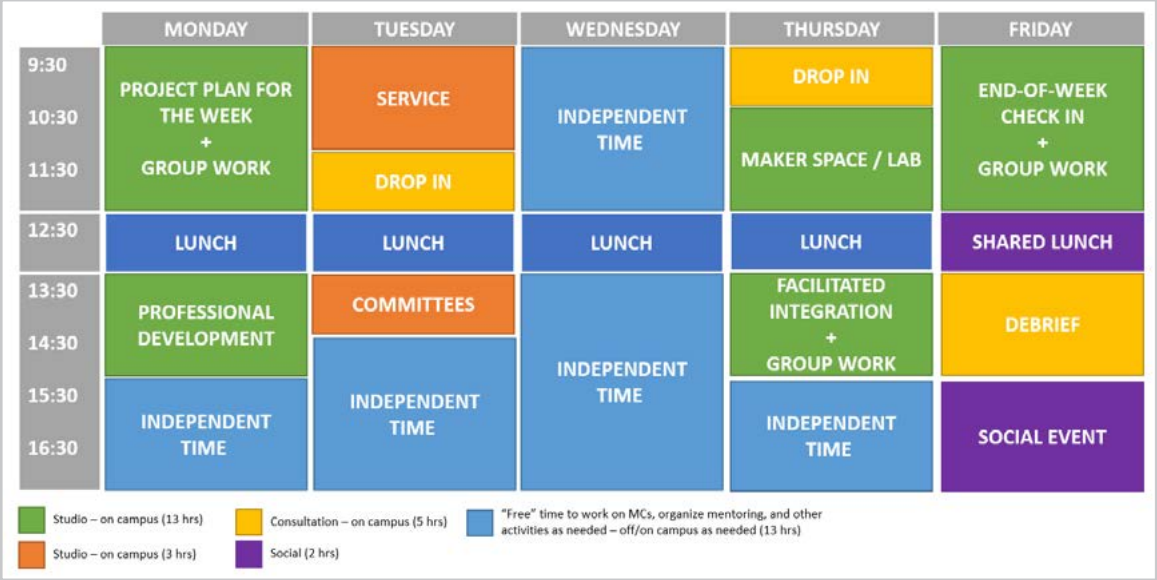
Because this is a new course, Swinburne cannot receive full accreditation from Engineers Australia until our first cohort of graduates finish, and the Engineers Australia accreditation panel interviews our graduates and confirms that their learning outcomes align to the accreditation requirements. We have worked closely with industry and Engineers Australia to ensure the course aligns with accreditation requirements.

Will I get paid?

As an Associate who both works and studies within the Engineering Practice Academy, you will be undertaking industry and community projects as a vocational placement student. This means that you will not be paid for your work, however, you will receive academic credit allowing you to complete your engineering degree while working on real projects.

What will a typical week look like?

Here is an example of what your timetable will look like in Term 1.



As this is a professional environment, you are required to attend all sessions in your timetable. You will also be expected to engage in individual study outside these hours. There is an expected time commitment of around thirty-six hours each week. Twenty-three of those hours will be spent on site at Swinburne or at a client. We understand that you may also want to pursue other interests or work commitments outside of university hours. We have designed the timetable with this in mind, with most afternoons and Wednesdays free. We're also aware that some associates will be working around family commitments, so no timetabled sessions will begin before 9.30am.

You will also have 24-hour access to the Academy studio and office spaces, should you wish to access them outside of timetabled sessions.

What happens if I need to visit a client at their site?

While you will spend much of your time working in the Academy, you may be required to visit client sites at times. In most cases, you will be required to make your own way to the client site. However, we can help you make arrangements to visit client sites, including helping you find suitable transport options where possible.

What happens to any Intellectual Property (IP) I generate during my degree?

As is typical for most consulting practices, you will be required to licence or assign any IP generated during the projects to the industry partner or community group you are working with.

Working with clients – security and confidentiality

Because you are working with real clients on real projects, there are times when you may be required to sign a Non-Disclosure Agreement or undergo a security check. You will be required to maintain client confidentiality.

Participation in research

Because the Academy is also a place of learning within a University setting, we will be conducting research relevant to student experience and engineering education. We will be asking Associates to give informed consent to participate in such research projects. However, giving your consent is not a requirement of your participation in this course.

What do you mean there are no exams? How will I be assessed?

You don't sit exams at work, so you won't sit exams at the Academy. Instead, you will demonstrate the skills and knowledge you have gained by applying them successfully to different tasks (e.g. using trigonometry to solve a project-related problem, or applying the principles of fluid dynamics to diagnose an issue). Just like an employee, you will also have performance reviews. Performance reviews will assess:

1. How well you are progressing towards your individual development goals
2. Overall project outcomes
3. How you approached your project, such as how you dealt with challenges or worked with your team to achieve the outcome.