Music Technology Programs

Certificate IV in Music (Technology)
Diploma in Music (Sound Engineering)
Bachelor of Music Studies (Music Technology)
Honours and Postgraduate Programs
You may not always be aware of it, but every time you listen to a CD, watch TV or hear your mobile phone ringing, you are experiencing the impact of music technology on your life.

Technology is an integral part of today’s musical world. From recordings to computer games, from film music to phone ring tones, music technology is ever-present in daily life. With the arts, entertainment, creative and media industries being multi-billion dollar global industries, numerous career opportunities exist for artists, producers, engineers, editors, programmers, composers, software and product developers, specialist retailers and educators.

The Electronic Music Unit (EMU) is the hub of music technology, sound production, sonic arts and electronic music at the Elder Conservatorium, University of Adelaide. It offers programs that provide knowledge and skills essential to developing a career in the diverse and ever-growing field of music technology. Whether your interests lie in sound engineering, sound designing for games or films, electronic composition, software or plug-in development or sound installation, EMU’s courses will develop your talents and give you the skills to become a music technology professional.

EMU is the oldest established electronic music studio in Australia and provides 24/7 access to a range of specialised facilities that include production studios, recording rooms, digital audio laboratories, interactive spaces and student amenities.

Being at the Elder Conservatorium and the University of Adelaide means students are part of the largest community of technological, jazz, classical and commercial musicians in South Australia. It also provides access to touring local, national and international artists and bands, which the university regularly hosts. Links to the broader university community are provided to give students opportunities to explore other areas such as media and individual research projects.

EMU offers a full range of programs in the fields of electronic music, sound engineering and music technology, starting at the pre-degree Certificate IV level and continuing through diploma, undergraduate and postgraduate awards.
The Diploma in Music (Sound Engineering) is a one year vocational program for students intending to work as professional sound engineers. It offers a comprehensive program taught by industry professionals in which students learn about recording, mixing, production, mastering, live sound, digital audio workstations, career management and industry skills.

**SOUND ENGINEERING (Studio)**
*Full year: 3 hour workshop per week*
Students study the process of studio engineering and production. Topics include signal flow, microphone placement, mixing, post-production, mastering and session management.

**SOUND ENGINEERING (Live)**
*Semester 1: 2 hour workshop per week*
The process of live sound engineering is approached through theory classes and practicals, including PA setup, signal flow, gain structure, trouble-shooting, set-up and session management.

**AUDIO STUDIES**
*Full year: 1 hour lecture per week
1 hour tutorial per week*
A practical, creative approach to digital audio sequencing, editing, processing and mixing is offered. Software used can include Cubase, Logic, ProTools and Live.

**MIDI STUDIES**
*Full year: 1 hour lecture per week
1 hour tutorial per week*
This involves a practical study of MIDI sequencing and editing software, including systems set-up, virtual instrumentation, scoring and media applications. Software may include ProTools, Cubase, Logic and Reason.

**MUSIC TECHNOLOGY FORUM**
*Full year: 2 hour workshop per week*
Students will explore concepts and techniques through participation in projects, workshops and special presentations by industry professionals and artists.

**COPYRIGHT LAW**
*1 hour lecture per week over 6 weeks*
Essential information about legal requirements and procedures to protect creative work from unauthorised use is learnt.

**CAREER MANAGEMENT**
*1.5 hour lecture per week over 6 weeks*
Planning of promotional activity, strategic communications, image development and using this to achieve planned career and commercial outcomes is explored.

**CONCEPTS OF MUSIC**
*Full year: 1 hour theory lecture per week
1 hour aural class per week*
This includes theory and aural components. Through theory the fundamentals of scales, chords, rhythms, and musical forms are learnt. In the aural component listening skills are developed through the study of sound as it relates to human hearing, with an emphasis on practical application in studio situations.

**OCCUPATIONAL HEALTH AND SAFETY**
*1 hour lecture per week over 6 weeks*
Personal safety, dealing with emergencies, and occupational health and safety issues in the music industry are studied.

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**STUDENT PROFILE:**

Lauren McMahon: 22
Diploma in Music (Sound Engineering)

I was born and raised in Adelaide and, since the age of 10, music has been my life. Since 2003 I have taught voice, flute, saxophone and choirs, and performed my own live music.

I decided to study for a Diploma of Sound Engineering to improve my production skills and acquire more experience with music software and hardware.

My future aspirations are to become a producer, continue as a live performer in the electronic music industry and use my experience to help students and other musicians fulfil their professional dreams.

Studying at the Electronic Music Unit within the Elder Conservatorium has given me the chance to use some amazing equipment and work with some very talented musicians. I have also acquired some invaluable skills from industry professionals who have inspired me to explore many exciting new facets of the world of music.
Certificate IV in Music (Technology)

The Certificate IV in Music (Technology) is a one year vocational program that provides a challenging and stimulating learning environment through which students explore the exciting field of music technology and develop skills in creating and producing digital music.

AUDIO STUDIES
Full year: 1 hour lecture per week
1 hour tutorial per week
A practical course in the application of software for digital audio sequencing, editing, processing and mixing. Software may include Cubase, Logic, ProTools and Live.

MIDI STUDIES
Full year: 1 hour lecture per week
1 hour tutorial per week
A practical course using software for MIDI sequencing and editing.

MUSIC TECHNOLOGY FORUM
Full year: 2 hour workshop per week
Students explore concepts and techniques through participation in projects, workshops, and special presentations by industry professionals and artists.

MUSIC INDUSTRY AND BUSINESS MANAGEMENT
1 hour lecture per week over 6 weeks
Financial and legal aspects of working in the music and associated industries are studied.

COMPOSITION CLASS
Full year: 1.5 hour workshop per week
Practical skills and conceptual frameworks for musical composition are developed with an emphasis on modern and contemporary approaches.

KEYBOARD MUSICIANSHIP
Full year: 1 hour workshop per week
Students study applied harmony, score reading and associated skills at the keyboard.

ASSIGNMENT WRITING AND RESEARCH SKILLS
1 hour lecture per week over 6 weeks
Fundamental techniques of research and writing are studied.

CONCEPTS OF MUSIC
Full year: 1 hour theory lecture per week
1 hour aural class per week
1 hour history tutorial per week
This includes theory, aural and history components. Through theory the fundamentals of scales, chords, rhythms, and musical forms are studied. In the aural component listening skills, identifying, notating and reading are developed. Via history the development of jazz, rock and other forms of popular music are studied and the development of research skills emphasised.

OCCUPATIONAL HEALTH AND SAFETY
1 hour lecture per week over 6 weeks
Personal safety dealing with emergencies, and occupational health and safety issues in the music industry are studied.

Maria Fava: 26
Certificate IV in Music (Technology)
I grew up in Milan, Italy, where I combined two career interests, music and finance, by studying Jazz Piano and Economics of Energy and Natural Resources. After living for short periods in Helsinki, New York and Mexico, I moved to France (Toulouse) where I worked for a firm that provides earth observation services. While in France I embraced the ‘electro-acoustic’ approach to music.
In April 2007 I moved to Adelaide to take up an offer to study for a Certificate IV in Music Technology at the Elder Conservatorium, which covers my interests in music, composition, sound recording and design.
In future I hope to continue to split my work across economics and music.
My goal is to compose music for documentaries, animated movies and theatre and establish a communications company that promotes renewable resources such as solar panels for schools and hospitals.
Bachelor of Music Studies –
Music Technology (Major)

The Bachelor of Music Studies is a 3 year degree in music that offers a major study in music technology. It includes practical and theoretical studies in digital sound and media, studio desktop recording and production, programming, composition for film, video and games, core music studies in theory and history and electives. The degree provides an all-round education for those who want to work in the diverse and growing field of music technology, whether in the media, arts, or education.

MUSIC TECHNOLOGY 1, 2 & 3

**Full year:**
- 1 hour per week Audio Arts
- 1 hour per week Creative Computing
- 2 hours per week Music Technology Forum

This sequence of courses across 3 years of the Bachelor of Music Studies forms the main practical component of the Music Technology stream. It is divided into three principal areas: Audio Arts, Creative Computing and Music Technology Forum.

Audio Arts:
Sound engineering, including all facets of recording, mixing, production and session planning
Sound design, including creative approaches to electronic music composition, and sound and music for films, TV, games, the Internet and multimedia.

Creative Computing:
Practical and theoretical study of software and computing applied to sound Sequencers, editors, processors, utilities and generators.

These components lead to the design and development of audio software and plug-ins and the acquisition of a flexible set of skills that can be applied in many different contexts, including composition, sound design, performance and software development.

Music Technology Forum:
A wide range of topics are presented and discussed by students, guest artists and industry professionals.
Practical sessions engage in diverse applications of technology to music, including performance, composition and instrument building.

PERSPECTIVES IN MUSIC TECHNOLOGY 1, 2 & 3

**Full year:**
- 1 hour per week Technology Theory
- 1 hour per week Technology History and Culture

Working in the field of music technology requires more than skills in the use of hardware and software; an understanding of the theoretical, historical, socio-cultural and philosophical foundations of technology is essential. Two classes examine these topics: Technology Theory and Technology Aesthetics, History and Culture.

Technology Theory:
Analogue and digital audio, acoustics, psychoacoustics, MIDI and signal processing.

Technology Aesthetics, History and Culture:
Electronic instruments and their evolution, composers, sound artists, producers, repertoire studies of major works of electronic composition and production.

STUDENT PROFILE:

Sebastian Tomczak: 23
Master of Music (Composition)

I studied classical music performance as a cellist in high school and went on to complete a Certificate IV in Audio Engineering.

In 2006 I graduated from the University of Adelaide with First Class Honours in a Bachelor of Music Studies (Technology). My creative project involved designing and building an instrument that uses the surface of water to manipulate sound in real time, and then composing and performing music for it.

I chose the Master of Music program of study in order to pursue my interests in music technology – programming, expression and aspects of performance through the means of physical computing and affordable electronic design.

I have gained an immense amount of experience, including presenting papers and performing at national conferences. Studying at the Electronic Music Unit has irrevocably opened my mind to lateral methods for music making beyond what I had assumed was possible.
Further Study

On completion of the Bachelor of Music Studies, students may be offered an additional year of study in an honours program, which provides the opportunity to expand and develop new concepts and ideas through creative and research projects. The study of music technology can be pursued further through research degrees at Masters’ and PhD levels.

BACHELOR OF MUSIC STUDIES (MUSIC TECHNOLOGY) (Honours)

At Honours level students undertake individual research projects in areas of music technology including electronic composition, sound engineering, software development, practical applications of audio theory, and media integration. A typical Honours program consists of:

Major Research Project (which may include dissertation, research reports, software documentation).

Creative Work (which may include compositions, sound design, or other creative applications of music technology).

Students may also take components from another Music Honours program.

MASTER OF MUSIC AND PhD

The Elder Conservatorium has one of Australia’s largest and most vibrant communities of postgraduate studies. The research degrees of Master of Music and PhD may be completed with a specialisation in Music Technology.

APPLICATION PROCESS

All applicants for Music Technology programs must go through an interview/audition process. This normally involves the presentation of a folio of previous work by the applicant in the field of music technology. International students should submit their folio in CD or DVD format. Full details of the application process for local and international applicants can be found on the University of Adelaide website.

www.adelaide.edu.au

Luke Harrald: 30
PhD in Music (Composition)

I was brought up in the middle of the wheat belt, and music composition has been my passion since I was young. After taking an undergraduate degree in Composition, I completed my honours year at the University of Adelaide, studying at night while working full time in a grain export facility.

Pursuing my PhD has given me the opportunity to focus specifically on my creative work. The support for my work, and the facilities have been outstanding, and I have had the opportunity to meet and work with many ‘experimental’ musicians around Australia and in Europe. I hope to continue pursuing my artistic and academic interests both in Adelaide and abroad.

My best experience from study has been travelling to Paris. Being able to attend conferences at IRCAM, the famous centre for music research, and work in Centre Pompidou and the studios at Centre de Creation Musicale Iannis Xenakis were experiences I never thought I would have had.