

# **Does a successful integration of artificial intelligence in a tertiary music education setting exist**

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*This article investigates the role of Generative Artificial Intelligence (GenAI) in enhancing learning and engagement in tertiary-level music education. Drawing on continual developments in intelligent tutoring systems, GenAI-assisted composition tools, and real-time feedback platforms, this research examines both the pedagogical benefits and ethical complexities of integrating GenAI into undergraduate music curricula. Through a mixed-methods study, including recent literature and practical application in a tutorial setting, this article intends to generate further discussion and research into the evolving role of music educators, ethical implications of GenAI and creativity alongside the provision of a practical foundation for music educators at an undergraduate level.*

## **GenAI transforming tertiary education**

GenAI is rapidly transforming many domains of tertiary education, with music emerging as a particularly rich area of experimentation and innovation. GenAI systems can now analyse performances, generate compositions, personalise learning, and even simulate ensemble participation in virtual environments. However, despite these advances, concerns remain about:

- The erosion of human creativity and emotional nuance
- Academic integrity in GenAI-supported work
- The teacher's evolving role in GenAI-mediated classrooms

These concerns have seen music education lag behind other subjects which have incorporated GenAI into their teaching and assessments (Zulic, 2019). Recent studies by Merchán Sánchez-Jara et al. (2024), Lei (2025), and Greco & Ludovico (2025) have called for empirically grounded research into how GenAI tools are used in real classroom settings and what outcomes they produce for students.

This article will investigate –

- How AI is currently being incorporated in tertiary music education in Australia
- The impact that AI integration has on student learning outcomes, creativity, and engagement
- A framework for responsible and effective implementation of GenAI in a tertiary music education environment

“It is the responsibility of the educational institutions to ensure graduates are adequately prepared to deal with the swift pace of evolution.” (Lee, 2025)

### **A Mapping of GenAI in Australian Tertiary Music Degrees**

The incorporation of GenAI at a tertiary level is continually shifting.

Tertiary providers in Australia have established policies that cover the responsible use of GenAI in assignments and academic tasks under academic integrity. These policies vary according to institutions with all requiring disclosure and use of GenAI. The University of Sydney as of Semester 1, 2025 states “you are allowed to use generative AI and automated writing tools for your assignments, unless your unit coordinator has prohibited the class from using it. You must acknowledge any use.” (University of Sydney, 2025). The use of GenAI is not allowed at an examination level or thesis level.

Transparency of how GenAI is involved in a tutorial setting is limited. Providers focus on the integration of GenAI in a production setting, composition setting, or performance setting. The method of integration is not clearly defined. The University of Adelaide has pioneered the Electronic Music Unit with digital arts and sonic arts programs now incorporated with advanced music technology and AI tools in composition and sound design under a major of Sonic Arts (University of Adelaide, 2024). The University of New South Wales is actively integrating AI in hands-on research and industry partnerships. Associate Professor Brown in the news release of 2021 “Artificially intelligent music finds a home at UNSW stated, “UNSW Art & Design has a world class reputation for collaboration in the creative application of new technologies and the new Arts, Design & Architecture (ADA) faculty merger now brings together all of the creative fields in UNSW under one roof,” (Wallis, 2021). In 2024 the Australian National University presented a concert that was a collaboration between the College of Engineering, Computing & Cybernetics and the School of Music that “unveiled six

new instruments, each embedded with AI and augmented reality components.” (ANU College of Systems & Society, 2024).

## **Tutorial Implementation**

Within a creative practice focused degree, the engagement of students in an academic setting is challenging. The Academy of Music and Performing Arts (AMPA) provides a Bachelor of Music degree with streams in Performance, Composition and Production. 50% of the degree is focused on creative outcomes and the remaining 50% focused on academic outcomes. The engagement of the student in the academic units is of primary concern. A particular challenge is faced within the history units where the traditional lecture method is failing. A review of the current student perceived restrictions of unit delivery is currently being undertaken at all stages of the degree. How to implement GenAI at a tutorial and assessment level is being trialled. Bofinger (2025) in his article *Supporting the Academic Process with AI Tools: Instead of Replacing Actual Intelligence (Acl) with Artificial Intelligence (AI)* discussed the incorporation of GenAI in the delivery of the Jazz History unit. This discussion provides a learning module of how this approach could be included within the History of Western Art unit, a unit that traditionally has a low level of engagement and a high level of failure. As a compulsory study unit for the degree a new method of delivery is required that will achieve the same learning outcomes, but with active engagement of the students.

Due to time limitations a trial assessment, *Exploring Style and Context with AI in Music History* was workshopped with a group of postgraduate students, with prior knowledge of the topic area.

### Lesson Module

Learning Outcome: By the end of the two-week lecture and tutorial period (90 minutes per week), students will -

1. Identify key stylistic features of selected historical musical periods (e.g., Medieval, Baroque, Romantic).
2. Analyse GenAI compositions in historical styles using musical terminology.
3. Critically assess GenAI historical information for accuracy and depth.

### Materials Required

- Computers or laptops with internet access
- Access to GenAI tools:
  - Generative Music AI (For example: Suno, MusicGen or Google's Music FX)
  - ChatGPT, Perplexity AI or equivalent historical chatbot (for example: Hello History, Historical Figures)
- Handouts with stylistic features checklists by period

### Lesson Outline

#### **Week 1: Generating Historical Context. Can GenAI be a historical expert.**

Lecture presentation of historical period and style of music. In this lesson plan the focus is Music of the Romantic Period: Expansion of Harmonic Language in the Piano Works of Chopin. The lecturer will provide historical context and a list of harmonic language, structure and features of the piano music of Chopin. Students will produce a checklist from this presentation.

In a group setting students will use ChatGPT or PerplexityAI to ask specific questions related to the piano music of Chopin. This will focus on historical context, social context, harmonic language and musical form. Students must then compare the AI's answer to the lecture notes.

At the conclusion of this 90-minute lecture/tutorial students must provide feedback on historical accuracy and terminology between GenAI results and lecture notes. This feedback must highlight any missing or misleading information.

#### **Week 2: Generating Historical Style Music**

This lecture/tutorial is a continuation and development from the materials studied on week 1.

A thorough analysis of a Chopin Nocturne is provided by the lecturer. This will focus on structure, rhythm, harmony, texture, and melody. How Chopin has developed the harmonic language through tonicization, and harmonization will be of primary focus. The lecture presentation will include various recordings of the chosen Nocturne, plus score analysis. Students must produce a stylistic checklist throughout the presentation.

At the conclusion of the lecture, using a GenAI tool (Suno for example) - students will generate a 1-minute sound file in the style of Chopin. The parameters provided being solo piano. Prompt for the GenAI tool: “A Romantic piano miniature with chromatic harmony”.

Students must then listen to and analyse the audio file according to the concepts of structure, rhythm, harmony, texture, and melody. A comparison to the stylistic checklist is then undertaken. Findings must then be presented.

### **The Impact of AI on student learning, creativity, engagement and satisfaction**

The study group showed active engagement throughout the two-week delivery period. Activity one highlighted that GenAI can provide historical context, social context and key stylistic features within seconds compared to traditional search methods. This key feature being a genuine factor in why students will engage the use of GenAI. Activity two provided an engaging delivery of advanced theoretical concepts that are traditionally confined to score delivery only. Feedback to the proposed module was only positive with all students reporting a higher level of engagement and satisfaction.

*This study, although brief confirms that GenAI can enrich tertiary music education, especially in areas of history, theory, and compositional experimentation. Educators need support to engage critically with GenAI tools, and curriculum designers must ensure that GenAI is used to foster, not constrain, creative growth.*

*The study also affirms that human elements—mentorship and artistic judgment remain essential in a tertiary setting. GenAI tools should be framed not as replacements, but as co-creative collaborators.*

*This study provides a foundational evidence base for understanding how GenAI can be integrated into tertiary music education in ways that support artistic development, pedagogical integrity, and ethical accountability.*

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