PS4083: Psychology of Music

Semester 1, 2022/23

Meeting times
Lectures/Seminars: Mondays, 11am-1pm;
The lectures will be recorded will be available for two weeks only, so please take notes. Note that student presentations and discussions will NOT be recorded.

Location: Younger Hall: Seminar Room 1

Credits
15

Module summary
The aim of the module is to introduce students to psychological processes underlying music perception, cognition, and performance. The relationship between musical phenomena and mental functions will be illustrated. The module will cover different areas within music psychology including topics such as synaesthesia, amusia, music memory and emotion, motor skill learning and performance anxiety. The module will be taught in the form of seminars including student presentations. Emphasis will be placed on the development of critical thinking and the ability to relate conceptual debates in psychology to issues in the real world such as music teaching and music therapy.

Prerequisites & Anti-requisites
Prerequisites: Before taking this module, you must pass PS2002

Assessment
Exam: 75% of course grade
Continuous Assessment: 25% of course grade
(for details, see below)

Staff
Dr Ines Jentzsch (module controller),
email: jj7@st-andrews.ac.uk;
contact/office hours: by email appointment
**Aims and Objectives**

This module will be based on seminars in which students will be expected to play an active part, contributing as much on the basis of their own reading as they receive from the course leader. This type of interactive teaching is designed to encourage acquisition of "deep" as opposed to "surface" knowledge. Emphasis will be placed on development of skills in the critical evaluation of research reports, and of understanding how current research will develop in the future.

**Intended Learning outcomes**

A) Knowledge & Understanding / Intellectual Skills:
On successful completion of this module students will be able to:
(1) Demonstrate an understanding of psychological processes underlying music perception, cognition and performance
(2) Communicate their acquired knowledge effectively, both orally and in writing
(3) Effectively manage time
(4) Demonstrate a critical appreciation of the published research on music psychology
(5) Apply the acquired knowledge to real-life issues

B) Module Specific / Practical Skills; Transferable / Key Skills:
(1) Teamwork; (2) Effective communication via oral presentations; (3) Practical skills of designing an experiment; (5) to think creatively and independently; (6) to handle complex bodies of information.

**Assessment:**

75% exam (2 essay questions chosen from 3 questions; 2-hour timed open-book online exam)
25% continuous assessment by one module essay (details see below)

**Continuous Assessment Essay**

Essay Title: “Active engagement in music can be psychologically or physically beneficial to us. Design a study to empirically test this claim.”
Clearly discuss the motivation for your study, discuss the hypotheses, the experimental design, and possible analysis strategies and statistical methods. Discuss also potential limitations of your study.
The essay should be presented as follows: a title page stating the title of the work, student’s matriculation number, the module number, and the date; no more than 4 A4 size pages of text – there must be at least a 1" margin all round (top, bottom, right and left); the text must be in Arial font at 12 point, 1.5 spaced. References within the text should be in APA format. The reference list does not count towards the page limit. **Note that these guidelines are different from the ones given in the honours handbook.**

Deadline for continuous assessment submission via MMS: **Friday the 14th October 2022, 12noon**

**Grade descriptors**
For details regarding the ‘Common reporting scale for module grades’ please see: [https://www.st-andrews.ac.uk/media/registry/students/transcripts/UG%20Credit%20and%20Grades%20Sheet%202019-0.pdf](https://www.st-andrews.ac.uk/media/registry/students/transcripts/UG%20Credit%20and%20Grades%20Sheet%202019-0.pdf).
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>References for Group Presentations</th>
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</thead>
<tbody>
<tr>
<td>12.09.22</td>
<td><strong>Lecture 1</strong>: General Introduction</td>
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<tr>
<td>19.09.22</td>
<td><strong>Lecture 2</strong>&lt;br&gt;Introduction to the Perception of Music</td>
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<td>26.09.22</td>
<td><strong>Lecture 3 + Group Pres.</strong>&lt;br&gt; Absolute Pitch&lt;br&gt; Congenital Amusia</td>
<td>(G1) Absolute Pitch&lt;br&gt; (G2) Congenital Amusia</td>
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<td>03.10.22</td>
<td><strong>Lecture 4 + Group Pres.</strong>&lt;br&gt; Music-Colour Synesthesia</td>
<td>(G3) Synesthesia – General Intro&lt;br&gt; (G4) Sound-Colour Synesthesia</td>
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<td>10.10.22</td>
<td><strong>Lecture 5 + Group Pres.</strong>&lt;br&gt; Music and Cognitive Abilities</td>
<td>(G5) Effects of Music Listening: Mozart Effect&lt;br&gt; (G6) Effects of Music Training</td>
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<td>Independent Learning week</td>
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<td>24.10.22</td>
<td><strong>Lecture 6 + Group Pres.</strong>&lt;br&gt; Music Cognition: Memory</td>
<td>(G7) Music &amp; Memory</td>
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<td>31.10.22</td>
<td><strong>Lecture 7 + Group Pres.</strong>&lt;br&gt; Music Cognition: Emotion</td>
<td>(G8) Music &amp; Emotion</td>
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<td>07.11.22</td>
<td><strong>Lecture 8</strong>&lt;br&gt;Attentional and Motor Control in Music Performance</td>
<td>(G9) Performance Anxiety</td>
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<td>14.11.22</td>
<td><strong>Lecture 9 + Group Pres.</strong>&lt;br&gt; Dysfunctions in Music Performance&lt;br&gt; Introduction to Music Therapy</td>
<td>(G10) Focal Dystonia</td>
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<td>21.11.22</td>
<td><strong>Lecture 10</strong>&lt;br&gt;Music Therapy&lt;br&gt; Guest Lecture by Emma Maclean (Music Therapist)</td>
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<td>28.11.22</td>
<td><strong>Revision session</strong></td>
<td>Online on Teams</td>
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Course Outline and Readings


Lecture 1: General Introduction
Students will be introduced to the general course structure and topic ranges within this lecture series. Also, the origins of music and potential functions of music from an evolutionary perspective will be discussed.


Lecture 2: Introduction to the Perception of Music
This lecture will review the basic anatomy of the auditory system, introduce basic concepts of psychoacoustics and discuss several auditory illusions

Deutsch (2013). The Psychology of Music. (Chapters 1 and 7:IV,7:V)

Lecture 3: Absolute Pitch and Congenital Amusia
This lecture (+ student presentation, Group 1) will introduce the concept of absolute pitch and contrast the Learning Theory with the Hereditary Theory to explain why this ability is so rare. The lecture (+ student presentation, Group 2) will also use the example of Congenital Amusia to discuss whether music processing uses a specialized brain network.

Deutsch (2013). The Psychology of Music. (Chapters 5 and 13)
(G1) Deutsch (2002). Current Directions in Psychological Science, 11(6), 200-204.

Lecture 4: Synaesthesia
This lecture (+ student presentations) will introduce the phenomenon of synaesthesia (Group 3) with a specific focus on colour-tone synaesthesia (Group 4) and use this example to demonstrate how psychologists can identify the genuineness of the effect using experimental and neuroimaging methods.


Lecture 5: Music and Cognitive Abilities
This lecture (+ student presentations) will discuss possible links between musical experience (passive listening and active music-making) and non-musical abilities. Group 5 will discuss the controversial the Mozart effect. Group 6 will discuss links between musical training and various cognitive functions.

Deutsch (2013) Psychology of Music (Chapters 11.VI and 12)
(G5) Pietschnig et al. (2010). Intelligence, 38,314-323.
**Lecture 6: Music Cognition - Memory**
This lecture will discuss how musical information is stored in our memory system, what strategies expert musicians use to memorize music, and how psychologists can measure memory for music using free recall procedures. Again, the modularity of music processing will be evaluated by discussing examples of selective damage or selective preservation of musical memory (student presentation, Group 7).

Deutsch (2013). The Psychology of Music (Chapter 7.1V)
(G7) Finke et al. (2012). Current Biology, 22(15), R591–R592

**Lecture 7: Music Cognition - Emotion**
This lecture (+ student presentation, Group 8) will discuss the link between music and emotion. The focus will be on distinguishing between the Emotivist and the Cognitivist Approach to emotion processing. Also, the difficulty of studying emotional responses to music and measuring them will be discussed.


**Lecture 8: Attentional and Motor Control in Music Performance**
This lecture (+ student presentations) will provide a short general introduction to basic concepts in motor learning, including a discussion of effects of attentional focus (internal versus external) on the efficiency of motor learning and performance, including a discussion on Performance Anxiety (Group 9).


**Lecture 9: Dysfunctions in Music Performance**
This lecture (+ student presentations) will discuss common dysfunctions that can strongly impair musical performance, including a discussion of Focal Dystonia (Group 10).

(G10) Ioannou & Altenmueller (2014). Neuropsychologia, 61, 80-88.

**Lecture 10: Music Therapy**
This lecture will discuss potential therapeutic effects of both passive and active engagement with music. Focus will be placed on evaluating the functions of music for affect regulation.

Deutsch (2013). Psychology of Music (Chapter 14)
Chan et al. (2011). Complementary Therapies in Medicine, 19, 332-348.
# Preparing and Delivering a Talk

## (Self-Evaluation Sheet)

<table>
<thead>
<tr>
<th>Group:</th>
<th>Date:</th>
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## Title of Talk:

### Evaluation Criteria

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<tr>
<th>Content:</th>
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<td>- Was sufficient breadth and depth of information presented?</td>
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<td>- Was all of the information relevant?</td>
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<td>- Was there an appropriate balance of information</td>
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<th>Coherence:</th>
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<tr>
<td>- Was the content clear and comprehensible?</td>
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<td>- Were the key messages of the talk apparent?</td>
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<td>- Was the information presented in a coherent order?</td>
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<th>Delivery:</th>
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<td>- Was the speaker audible and articulate clearly?</td>
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<td>- Did the speaker show confidence?</td>
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<td>- Did the speaker keep the audience’s attention?</td>
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<th>Use of Media:</th>
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<tr>
<td>- Were the contents of the slides relevant to the talk?</td>
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<td>- Were the slides clear and uncluttered?</td>
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<th>Timing:</th>
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<td>- Was the talk well-paced?</td>
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### Module No: PS4083

#### Matriculation No: _____________________________

### Senior Honours Research Proposal CA Grade Criteria Sheet

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<thead>
<tr>
<th>Grade ……</th>
<th>0-6.9</th>
<th>7-10</th>
<th>11-13</th>
<th>14-16</th>
<th>17-20</th>
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<tbody>
<tr>
<td><strong>Background</strong></td>
<td>Mostly irrelevant or missing background material indicative of poor scholarship;</td>
<td>Unsatisfactory depth of literature review; over-reliance and uncritical acceptance of other sources.</td>
<td>Frequent use of secondary or out-of-date material with some substantive errors; little evidence of critical analysis.</td>
<td>Some use of secondary sources or out-of-date material; some minor errors; some evidence of critical thought.</td>
<td>Scholarly depth of literature review plus extensive critical analysis of material.</td>
</tr>
<tr>
<td><strong>Rationale and Research Questions</strong></td>
<td>Aims and relevance of research to psychology omitted. Specific hypotheses or research goals not mentioned.</td>
<td>Poor linkage between research and psychology; no mention of hypotheses or research goals.</td>
<td>Poor linkage between research and psychology; poor description of research hypotheses or goals.</td>
<td>Research presented in context of psychological theories; research hypotheses and goals clearly described.</td>
<td>Justification of research indicates creative thought; novel research hypotheses or goals justified clearly in terms of advancing psychology.</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>Missing or mostly inaccurate</td>
<td>Inappropriate methodology or poor description. Errors or contradictions. Poorly justified analysis strategy</td>
<td>Major aspects of the method are missing or ambiguous. Analysis well justified but indicating a lack of knowledge</td>
<td>Appropriate, methodology and generally clear, but some details of method may be missing or ambiguous. Analysis clear with some minor omissions</td>
<td>Careful and clear reasoning for selection of methodology. Clear and precise description of procedure and analysis strategy,</td>
</tr>
<tr>
<td><strong>Precision of Expression</strong></td>
<td>Absence of scientific precision in the use of terms and concepts</td>
<td>Some instances of scientific precision in the use of terms and concepts, but predominant sloppiness and redundancy</td>
<td>Adequate precision in overall terms, but still widespread instances of sloppiness and redundancy</td>
<td>General use of precise scientific language with few instances of sloppiness or redundancy</td>
<td>Clear analytic use of language, with precise use of concepts and negligible redundancy of expression.</td>
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<tr>
<td><strong>Referencing</strong></td>
<td>Missing references and referencing of material not cited in the text</td>
<td>Frequent errors both in the content and style of references.</td>
<td>Reference list broadly comprehensive, but frequent failure to use appropriate style in citing references</td>
<td>Referencing accurate, though some stylistic errors in the reference list</td>
<td>Thorough and proper referencing throughout.</td>
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### Additional Comments

*In some cases, the nature and extent of plagiarism will not merely attract a failing grade, but will also require referral to the Academic Disciplinary Process.*
## Support contacts

<table>
<thead>
<tr>
<th>Module Controller</th>
<th>Ines Jentzsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>School administrative office for general teaching matters</td>
<td><a href="mailto:psyneuroug@st-andrews.ac.uk">psyneuroug@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Director of Teaching</td>
<td><a href="mailto:psydot@st-andrews.ac.uk">psydot@st-andrews.ac.uk</a></td>
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<tr>
<td>Psychology Degree Controller</td>
<td><a href="mailto:jg5@st-andrews.ac.uk">jg5@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Psychology &amp; Neuroscience Student Wellbeing Officer</td>
<td><a href="mailto:psyneuro_wellbeing@st-andrews.ac.uk">psyneuro_wellbeing@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Advice &amp; Support Centre (ASC) – welfare and support services</td>
<td><a href="mailto:theasc@st-andrews.ac.uk">theasc@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Centre for Educational Enhancement and Development (CEED) – learning and development support for students</td>
<td><a href="mailto:ceed@st-andrews.ac.uk">ceed@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>International Education Institute - English language support</td>
<td><a href="mailto:ie@st-andrews.ac.uk">ie@st-andrews.ac.uk</a></td>
</tr>
</tbody>
</table>

**University student Handbook:**

https://www.st-andrews.ac.uk/education/handbook/