

SM5369A: TOPICS IN SOUND: AMBISONICS (SPATIAL AUDIO) FIELD RECORDING

Effective Term

Semester A 2026/27

Part I Course Overview

Course Title

Topics in Sound: Ambisonics (Spatial Audio) Field Recording

Subject Code

SM - School of Creative Media

Course Number

5369A

Academic Unit

School of Creative Media (SM)

College/School

School of Creative Media (SM)

Course Duration

One Semester

Credit Units

3

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

The course provides an introduction into Ambisonics, also known as Spatial Audio, and its use in practice-based research. Technical and artistic considerations for the spherical format are covered, along with the theory and practice of field recording and sound methodologies, and the possibilities for its use in conjunction with 360-video and other media.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 app.)		DEC-A2	DEC-A3
1	Describe aspects of sound practice and research that are not already covered in the currently listed SCM courses.			x	
2	Discuss a new research agenda in response to topics and methods raised in the course.			x	
3	Design creative and research projects to verify new ideas			x	

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

LTAs		Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Students will engage in formal lectures where the instructor will present concepts, theories and case studies in selected issues pertaining to media art.	1, 2, 3	
2	Class discussions	Students will engage in structured discussion with peers and students to identify areas to improve on in their projects	1, 2, 3	
3	Research	Students will develop and in-depth understanding of relevant materials to write papers or create artistic projects as set by the instructor.	1, 2, 3	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks	Allow Use of GenAI?
1	Commentary / reviews	1, 2, 3	15	-	Yes
2	Creative projects	1, 2, 3	70	-	Yes
3	In-class discussion and critique of classmates' work	1, 2, 3	15	-	No

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

0

Minimum Examination Passing Requirement (%)

0

Assessment Rubrics (AR)**Assessment Task**

Assessment of in-class critique and class participation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

This assessment task reviews students' participation and performance in discussions, research and peer critique during the tutorial sessions. The evidence of 'negotiation', the sign of discovery, lies in students' sensibility to art and interpersonal sensitivity to his/her peer members.

Excellent

- (A+, A, A-) - Active in-class participation, positive listening, strong ability to stimulate and positively steer class discussion.
- Evidence of extensive pre-class preparation and familiarity with peer reports.
- Readiness to share informed personal insights.
- Constructively critical, thus facilitating the discovery of new issues.

Good

- (B+, B, B-) - Active in-class participation, positive listening, ability to initiate and contribute to class discussion.
- Adequate pre-class preparation and familiarity with peer reports.

Fair

- (C+, C, C-) - Attentive in in-class participation, listening with comprehension, infrequent contribution.
- Adequate pre-class preparation and familiarity with peer reports.

Marginal

- (D) - Unmotivated to participate in in-class discussion.
- Inadequate pre-class preparation.

Failure

- (F) - Unwilling to participate in in-class discussion even when requested by the instructor.
 - No evidence of pre-class preparation.
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Assessment Task

Assessment of Creative Projects (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The evidence of 'discovery' lies in the students' demonstrated ability to address and approach problems in multiple perspectives.

Excellent

(A+, A, A-) - Work has strong affective quality and the articulation of personal styles and signature.

- Excellent appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium.
- Refined execution, evidence of a high level of technical competency.
- Highly efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment.

Good

(B+, B, B-) - Strong appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium.

- Successful execution, evidence of a satisfactory level of technical competency.
- Proper adjustment of plans and strategies in response to resources (time, space, equipment, etc) available and constructive feedback/ suggestions

Fair

(C+, C, C-) - Basic appreciation and/or application of the aesthetic and expressive qualities of the medium.

- Evidence of an adequate level of technical competency.
- Proper adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

Marginal

(D) - Marginal appreciation of the aesthetic and expressive qualities of the medium

- Limited adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

Failure

(F) - Little to no appreciation of the aesthetics and expressive qualities of the medium.

- Fail to adjust plans and strategies in response to resources (time, space, equipment, etc) available.

Assessment Task

Assessment of Papers (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Students should demonstrate ability to utilize primary and secondary sources, execute creative ideas and projects.

Excellent

(A+, A, A-) - Rich content, excellent ability to interpret and integrate various resources

- Rigorous organization, coherent structure, systematic composition
- Precision in argument, well defined and reasoned points of view grounded in insightful interpretation of existing literature
- Readiness to respond to peer opinion and other views initiated in class discussion
- Discussion shed light on new dimensions of the issue

Good

(B+, B, B-) - Adequate content, sufficient ability to integrate various resources based on demand

- Reasonable organization with balanced structure and composition
- Clear elaboration of ideas that sticks to the point, with clearly differentiated issues, ability to interpret opinions independently
- Sufficient responses to peer comments to sustain a discussion

Fair

(C+, C, C-) - Adequate content, fair ability to integrate various resources based on demand

- Fair organization with adequate structure and composition
- Relevant points made to the subject matter in question
- Ability to respond to other statements and engage in class discussion

Marginal

(D) - Weak content, limited use of resources

- Poor organization, structure and composition
- Relevant points to the subject matter, marginal ability to interpret opinions
- Ability to respond to other comments in simple terms

Failure

(F) - Inadequate content, no/ irrelevant use of resources

- No organization, structure or/and composition
- Irrelevant points to the subject matter, no ability to interpret opinions
- Fail to respond to other comments

Assessment Task

Assessment of in-class critique and class participation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

This assessment task reviews students' participation and performance in discussions, research and peer critique during the tutorial sessions. The evidence of 'negotiation', the sign of discovery, lies in students' sensibility to art and interpersonal sensitivity to his/her peer members.

Excellent

(A+, A, A-) - Active in-class participation, positive listening, strong ability to stimulate and positively steer class discussion.

- Evidence of extensive pre-class preparation and familiarity with peer reports.
- Readiness to share informed personal insights.
- Constructively critical, thus facilitating the discovery of new issues.

Good

(B+, B) - Active in-class participation, positive listening, ability to initiate and contribute to class discussion.

- Adequate pre-class preparation and familiarity with peer reports.

Marginal

(B-, C+, C) - Attentive in in-class participation, listening with comprehension, infrequent contribution.

- Adequate pre-class preparation and familiarity with peer reports.

Failure

(F) - Unwilling to participate in in-class discussion even when requested by the instructor.

- No evidence of pre-class preparation.

Assessment Task

Assessment of Creative Projects (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The evidence of 'discovery' lies in the students' demonstrated ability to address and approach problems in multiple perspectives.

Excellent

- (A+, A, A-) - Work has strong affective quality and the articulation of personal styles and signature.
- Excellent appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium.
 - Refined execution, evidence of a high level of technical competency.
 - Highly efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment.

Good

- (B+, B) - Strong appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium.
- Successful execution, evidence of a satisfactory level of technical competency.
 - Proper adjustment of plans and strategies in response to resources (time, space, equipment, etc) available and constructive feedback/ suggestions

Marginal

- (B-, C+, C) - Basic appreciation and/or application of the aesthetic and expressive qualities of the medium.
- Evidence of an adequate level of technical competency.
 - Proper adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

Failure

- (F) - Little to no appreciation of the aesthetics and expressive qualities of the medium.
- Fail to adjust plans and strategies in response to resources (time, space, equipment, etc) available.
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Assessment Task

Assessment of Papers (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Students should demonstrate ability to utilize primary and secondary sources, execute creative ideas and projects.

Excellent

- (A+, A, A-) - Rich content, excellent ability to interpret and integrate various resources
- Rigorous organization, coherent structure, systematic composition
 - Precision in argument, well defined and reasoned points of view grounded in insightful interpretation of existing literature
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 - Discussion shed light on new dimensions of the issue

Good

- (B+, B) - Adequate content, sufficient ability to integrate various resources based on demand
- Reasonable organization with balanced structure and composition
 - Clear elaboration of ideas that sticks to the point, with clearly differentiated issues, ability to interpret opinions independently
 - Sufficient responses to peer comments to sustain a discussion

Marginal

- (B-, C+, C) - Adequate content, fair ability to integrate various resources based on demand
- Fair organization with adequate structure and composition
 - Relevant points made to the subject matter in question
 - Ability to respond to other statements and engage in class discussion

Failure

- (F) - Inadequate content, no/ irrelevant use of resources
- No organization, structure or/and composition
 - Irrelevant points to the subject matter, no ability to interpret opinions
 - Fail to respond to other comments

Part III Other Information

Reading List

Compulsory Readings

	Title
1	Cathy Lane and Angus Carlyle, ed. 2013. In the Field - The Art of Field Recording. UK, Uniformbooks.
2	Jonathan Sterne, ed. 2012. The Sound Studies Reader. UK, Routledge. 2012.
3	Westerkamp, Hildegard. 2007. "Soundwalking." In Autumn leaves: sound and the environment in artistic practice. CRiSAP/Double Entendre, p.49.
4	Zotter, Franz, and Matthias Frank. 2019. Ambisonics: A Practical 3d Audio Theory for Recording, Studio Production, Sound Reinforcement, and Virtual Reality. Springer Nature.
5	Barrett, Natasha. 2016. "A musical journey towards permanent high-density loudspeaker arrays." Computer Music Journal 40 (4): 35-46.
6	Drever, John Levack. 2002. "Soundscape composition: the convergence of ethnography and acousmatic music." Organised Sound 7 (1): 21-27.
7	R. Murray Schafer. 1977. The Soundscape: Our Sonic Environment and the Tuning of the World. New York, NY: Knopf.
8	Barrett, G. Douglas and Lindsey Lodhie. 2014. "'Hearing Things Through Things': Hong-Kai Wang's Music While We Work." Ear
9	Cusack, Peter. 2016. "Field Recording as Sonic Journalism," Hearing Landscape Critically, 21-22 April 2016
10	Thompson, Marie. 2017. Beyond unwanted sound: Noise, affect and aesthetic moralism. New York, NY: Bloomsbury Publishing USA.