

SYLLABUS

MPATE-GE 2312: Tonmeister Technology II

Steinhardt School of Culture, Education, and Human Development

Department of Music Technology

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Office Hours: Wednesday 3:30 pm to 6:00 pm

Catalog Description

Course examines advanced Tonmeister music production theories and techniques related to recording acoustic music for playback on immersive sound systems. Students will sharpen their recording skills through class lectures and live recording sessions. Topics include surround sound (Dolby 5.1), surround with height channels (Auro-3D), wave field synthesis (WFS), immersive audio, and object based systems (Dolby ATMOS).

Learner Objectives

By the end of the course students will be able to:

- Identify, classify, and analyze several types of multi-channel sound systems.
- Plan and execute surround and 3-D recording of live performances of classical, jazz, folk, and world music.
- Compare immersive recording techniques and analyze the type of sound images that they will produce.
- Assess and critique the sound quality produced by stereo, 5.1 surround sound, and sound systems with height channels (3-D).

Assessment

Assignments	35% (7 assignments, 5% each)
Mid-Term Exam	20%
Final Exam	35%
Class participation	10%

Assignments (5% each)

For each recording session listed, a single PDF of documentation is required, one per session, that includes the following information:

1. Session date
2. Performing artists
3. List of performed repertoire
4. Microphone input list
5. Seating and microphone position diagram
6. A written description of the sound quality produced by each immersive recording system used

Recording Sessions:

1. Jazz quartet (5 points)
2. Film orchestra (5 points)
3. Classical guitar (5 points)
4. Tango ensemble (5 points)
5. Classical Indian music (5 points)
6. New Music ensemble (5 points)
7. World music ensemble (5 points)

Class Participation

Students will be expected to participate in class listening exercises and live recording sessions that are crucial to the structure of the course. Through active class discussions, students will benefit and learn from one another's experiences. The class listening exercises and discussions will reflect the learning objects, assignments, and assigned

readings for the course. For example, students will be assigned specific tasks during recording sessions including: production, recording, score following, microphone placement, recording console operation, and documentation.

Readings

Required Texts

Holman, Tomlinson (2008). *Surround Sound:Up and Running*. Focal Press

Suggested Additional Reading

Everest, Alton F. (1992). *The New Stereo Handbook*, Tab Books

Course Format

Classes will be conducted using direct instruction, listening exercises, group discussions, and small and large group recording activities.

Course Website

The **syllabus**, details about **assignments**, and any other general **course information** will be available online through NYU Classes. In addition, postings will be made regarding events or other items of importance regarding this course.

Course Outline

2 nd Summer Session	Topic	Assignment
Week 1 Day 1	Lecture: 5.1 Surround Sound Monitoring	Reading pp. 23-31
Week 1 Day 2	Lecture: Surround Sound Recording Techniques	Reading pp. 32 -67
Week 1 Day 3	Jazz quartet Recording Session	Jazz quartet Documentation
Week 1 Day 4	Film Orchestra	Film Orchestra Documentation
Week 2 Day 1	Lecture: Recording With Height , AURO 3-D	Reading pp.71-105
Week 2 Day 2	Classical Guitar Recording Session	Classical guitar Documentation Midterm Take Home Exam Due

Week 3 Day 3	Tango ensemble Recording Session	Tango ensemble Documentation
Week 4 Day 4	Classical Indian music Recording Session	Classical Indian music
Week 3 Day 1	Lecture: Multi-channel Mixing Techniques, Dolby ATMOS	Reading pp. 65- 86
Week 3 Day 2	New Music ensemble Recording Session	New Music ensemble Documentation
Week 3 Day 3	World music ensemble Recording Session	World music ensemble Documentation
Week 3 Day 4	Final Exam	5 essay questions based on assigned text readings and lectures

Statement on Academic Integrity

Students are responsible for understanding the concept of plagiarism, and knowing and understanding the contents of the University “Statement of Academic Integrity”
http://steinhardt.nyu.edu/policies/academic_integrity

Plagiarism will immediately result in a failing grade in the course and the student will be reported to their school’s academic Dean.

Students with Disabilities

Academic accommodations are available for students with documented disabilities. Please contact the Moses Center for Students with Disabilities at 212-998-4980 for further information.

Appendix A

Graduate Scale and Rubric

Steinhardt School of Education Grading Scale

There is no A+

A

93-100

A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	65-69
D	60-64
There is no D-	
F	Below 60
IP	Incomplete/Passing
IF	Incomplete/Failing
N	No Grade

Letter Grade Rubric

A—Outstanding Work

An "A" applies to outstanding student work. A grade of "A" features not simply a command of surround and 3-D recording techniques, but importantly, a high level of understanding the scientific concepts, practical applications and artistic outcomes associated with these immersive recording techniques.

An "A" assignment is excellent in nearly all respects:

- It fulfills requirements of the assignment
- Is composed in a neat, compressive, and accurate manner
- It demonstrates a clear understanding of the immersive recording techniques discussed and demonstrated in class.

B—Good Work

A "B" is given to work of high quality that reflects a command of surround and 3-D recording theory and techniques and a strong presentation but lacks an in-depth technical or aesthetic engagement with the material.

A "B" assignment shares most characteristics of an "A" project, but

- It may have some minor weaknesses in the documentation and command of the material.
- It fails to meet one requirements outlined in the assignment.

C—Adequate Work

Work receiving a "C" is of good overall quality but exhibits deficiencies in the student's technical knowledge, skill level, or has inaccurate documentation.

A "C" project is generally competent; it is the average performance. Compared to a "B" project:

- It may have serious shortcomings in its command of the reading and lecture material or accuracy in the documentation that should have been obtained by doing the readings and participating in class recording sessions.
- It fails to meet one or two of the requirements outlined in the assignment.

D or F—Unsuccessful Work

The grade of "D" indicates significant problems with the student's work, such as a shallow understanding of the material.

- It fails to demonstrate an understanding of the technical material covered in class.
- It fails to demonstrate adequate music production skills
- It fails to fulfill 2 or more of the requirements outlined in the assignment

An "F" is given when a student fails to demonstrate an adequate understanding of the material, or fails to follow the directions in an assignment, or fails to hand in an assignment.

Pluses (e.g., B+) indicate that the assignment is especially strong on some, but not all, of the criteria for that letter grade. Minuses (e.g., C-) indicate that the paper is missing some, but not all, of the criteria for that letter grade.

Assignment Grade Rubric

5 Points = A work

4 Points = B work

3 Points = C work

2 Points = D work

1 Point = F work

Class Participation Rubric

A (14 to 15 Points) The student attends all classes and always participates in class discussions and recording exercises.

B (11 to 13 Points) The student attends most classes, participates in most recording sessions, and sometimes participates in class discussions.

C (9 to 10 Points) The student attends most classes, participates in most recording sessions, but rarely participates in class discussions.

D (6 to 8 Points) The student attends most classes, participates in some recording sessions, and does not participate in class discussions.

F (1 to 7 Points) The student misses some recording sessions or is late, participates and does not participate in class discussions.