BTMM 275
Intermediate Digital Audio
Syllabus

Prerequisite:  BTMM 175
Lab fee:  $50

Course Description
In this in-depth examination of recording and editing techniques in the digital domain, students gain hands-on experience on a larger format Digital Audio Workstation during the recording and overdubbing phases of production. Emphasis is placed on running actual sessions in a variety of settings including music and radio spot production. Additionally, much of the theory and technology involved in the digitization of audio are examined to provide a foundation on which students can build for the future.

Required Text

Required Materials
• 2 100MB Macintosh Formatted Zip Disks
• 2 Recordable Compact Discs
• Additional disks may be needed depending on size and scope of individual student projects.
• Approximate Cost for above materials: $25
• Each student is required to own and bring to each class one pair of good-quality headphones with a 1/4” connector. Each student should still have these from prerequisite courses.
• Lab Fee provides:
  • Access to Pro Tools 24 Studio – Studio G (provided with lab fee)*
  • Access to portable recording equipment (provided with lab fee)

Competencies
Successful completion of this course is based upon students being able to demonstrate the following competencies:
• Ability to properly start up a full control room including Pro Tools 24
• Ability to perform basic non-destructive, non-linear editing to spoken word and music recordings
• Development of practical microphone technique for voice
• Development of practical microphone technique for various musical instruments
• Development of practical microphone technique for sound effects
• Thorough understanding of the functioning and component parts of a mixing board
• Understanding of music production techniques for linear, analog multitrack systems
• Understanding of music production techniques for non-linear, digital multitrack systems
• Understanding of the Analog to Digital conversion process and Pulse Code Modulation
• Understanding of the Nyquist Theorem
• Understanding of the basic system requirements for a computer based digital audio system
• Understanding of basic recording session procedures
• Understanding of basic recording session paperwork
• Practicing sound file management and organizational skills
• Practicing professional habits with regards to tape and disc labeling and studio etiquette

Instructor Contact
• See instructor
• See instructor

* Unsupervised access to Studio is limited to students who have passed a Studio Proficiency Test.
Required Equipment
Each student is expected to bring his or her own pair of quality headphones with a 1/4" phono connector to each lab period as well as all necessary tapes and disks. Students are also expected to have all pertinent texts and other reading material as well as basic academic supplies (i.e., pens/pencils, notebooks, etc.) with them during all meeting times.

Exams & Quizzes
There will be 4 periodic quizzes in addition to a comprehensive Final Examination based on material found in the weekly textbook readings in addition to other classroom materials. Students will have one week to make up any missed test in the case of reasonable, documented absences.

Students interested in taking the Studio Proficiency test may do so beginning after Midterm. This should be scheduled individually with the instructor or his assistant. Any student wishing to take the test prior to midterm may petition the instructor to do so provided they are carrying a B+ average or better.

Production Assignments
The student - teacher relationship with regards to the production work should be viewed by the student as a producer - client relationship. Students should treat each project as if the instructor were their client. Student production teams are therefore expected to meet all production specifications. Students are also expected to show good aesthetic judgment in terms of sound design. When not completed according to specification the following will apply:

• Late productions will not be accepted, i.e. you will have earned "0" points.
• Each formatting or labeling problem will result in the loss of one letter grade.

No one will be permitted to make up any missed production assignments.

For these productions, students will be working in groups of three or four. Each student is responsible for his or her own participation in one production group. These groups should be viewed as small businesses. Therefore, students may hire and fire any individual as they see fit based on his or her work ethic. Each group member is required to hand in an evaluation of his or her partners' contribution to the project that will be factored into each individual group member's grade for the project.

Attendance & Participation
Attendance is required for all lab and lecture periods; a portion of each student’s final grade will be based on class participation (see below). Students should also bear in mind the above policy regarding missed quizzes and the fact that there is much in both lecture and studio activities that cannot be gleaned from copied notes.

All students are expected to act responsibly and conduct themselves in a professional manner during all class periods and studio sessions. Refer to the Code Of Conduct and Disciplinary Procedures sections of the Student Handbook.

Students with Disabilities
It is Temple University's policy to provide reasonable accommodations to students with disabilities under the American Disabilities Act (ADA). At the beginning of each semester, any student with a disability should inform the course instructor if instructional accommodations or academic adjustments will be needed. For more information about the ADA and academic accommodations or adjustments, contact the Office of Disability Resources and Services (http://www.temple.edu/disability; 215-204-1280; hellodrs@astro.temple.edu).

Grading
1) Exams = 25% (25 points toward your final grade.)
2) Quizzes = 20% (4 quizzes worth 5 points each toward your final grade.)
3) Projects = 30% (1 Editing and 2 Layering projects worth 10 points each toward your final grade.)
4) In-Class Sessions = 15% (15 points toward your final grade.)
5) Participation = 10% (10 points toward your final grade based on attitude and professionalism.)

The total number of points you are able to earn is 100 and your letter grade will be based on this scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
</tr>
<tr>
<td>A-</td>
<td>90 - 92</td>
</tr>
<tr>
<td>B+</td>
<td>87 - 89</td>
</tr>
<tr>
<td>B</td>
<td>83 - 86</td>
</tr>
<tr>
<td>C+</td>
<td>77 - 79</td>
</tr>
<tr>
<td>C</td>
<td>73 - 76</td>
</tr>
<tr>
<td>B-</td>
<td>80 - 82</td>
</tr>
<tr>
<td>F</td>
<td>below 70</td>
</tr>
</tbody>
</table>

©2002 Jack Klotz, Jr., Temple University
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Reading Due</th>
<th>Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>x</td>
<td>Orientation &amp; Overview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>x</td>
<td>Sound and Recording Fundamentals - Introduction to Pro Tools</td>
<td>Huber, Ch. 1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td>Analog Multitrack Fundamentals</td>
<td>Huber, Ch. 2</td>
<td>Analog Class Proposals</td>
</tr>
<tr>
<td>4</td>
<td>x</td>
<td>The Recording Studio Environment - Acoustics &amp; Studio Set-up</td>
<td>Huber, Ch. 5</td>
<td>Quiz #1</td>
</tr>
<tr>
<td>5</td>
<td>x</td>
<td>Analog Session #1 - Working with the Rhythm Section</td>
<td>Huber, Ch. 3</td>
<td>Falsification Due</td>
</tr>
<tr>
<td>6</td>
<td>x</td>
<td>Analog Session #2 - 1st overdubs, Bouncing Tracks &amp; Punching In</td>
<td>Huber, Ch. 4, pp. 91 - 110</td>
<td>Project Audition</td>
</tr>
<tr>
<td>7</td>
<td>x</td>
<td>Analog Session #3 - Final overdubs</td>
<td>Huber, Ch. 11</td>
<td>Quiz #2, Multitrack #1 Proposal</td>
</tr>
<tr>
<td>-</td>
<td>x</td>
<td>Spring Break - NO CLASS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>x</td>
<td>Analog Session #4 - Mixdown</td>
<td>Huber, Ch. 12</td>
<td>Digital Project Proposals</td>
</tr>
<tr>
<td>9</td>
<td>x</td>
<td>Review of Analog Project / Pre-production for Digital Project / Digital Audio Basics</td>
<td>Huber, Ch. 6</td>
<td>Multitrack #2 Proposal</td>
</tr>
<tr>
<td>10</td>
<td>x</td>
<td>Digital Session #1 - Working with the Rhythm Section</td>
<td>Huber, Ch. 16</td>
<td>Multitrack #1 Due</td>
</tr>
<tr>
<td>11</td>
<td>x</td>
<td>Digital Session #2 - 1st overdubs, Bouncing Tracks &amp; Punching In</td>
<td>Huber, Ch. 4, pp. 110 - 153</td>
<td>Quiz #3, Project Audition</td>
</tr>
<tr>
<td>12</td>
<td>x</td>
<td>Digital Session #3 - Final overdubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>x</td>
<td>Digital Session #4 - Mixdown / Review for Exam</td>
<td>Huber, Chs. 10 &amp; 14</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>x</td>
<td>Study Day - No Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>x</td>
<td>FINAL EXAM followed by Audition of Projects</td>
<td></td>
<td>Multitrack #2 Due</td>
</tr>
</tbody>
</table>

Syllabus available on line at: [http://astro.temple.edu/~jklotz/]
BTMM 275
Intermediate Digital Audio
Projects

1) **Falsification** – Students use a non-linear hard disk editing system to manipulate a recording of Hamlet’s familiar soliloquy from Act II, Scene I (“To be or not to be…”). The goal of this manipulation is to somehow change the meaning of the soliloquy - to make Hamlet say something other than what he said in the original recording.

   **Objectives:**
   a) *technical*: to develop competency in importing previously recorded audio from Audio CD and to further develop skill in non-destructive editing.
   b) *aesthetic*: to develop an understanding of the powerful role which editing plays in the communication process and the impact that it could have on media content.

2) **Layering** – Students utilize a Digital Audio Workstation to create 2 different Soundscapes. Layering music (as traditionally defined), speech and sound effects, students create a sonic “picture”; much like a soundtrack to a film or video that has no pictures.

   Styles in which students may work include:
   - Documentary
   - Advertisement / Public Service Announcement
   - Radio Drama
   - News Report (Actual or Fictional)
   - Experimental

   (Students are encouraged to gain experience working in a variety of these styles.)

   **Objectives:**
   a) *technical*: to gain experience in sound gathering (utilizing portable DAT, 1/4” reel and cassette recorders), overdubbing and other multitrack production techniques, multitrack mixdown, and preserving fidelity throughout transfer to a distribution copy of the finished piece.
   b) *aesthetic*: to gain an understanding of how an “artificial reality” is created using the aforementioned techniques and to develop an understanding of the critical role sound design plays in all media by having to tell their stories with sound only.

3) **Large Scale, In-class Production** – Students, working in larger groups, will produce two large format multitrack music projects - one in the Analog domain; the other, Digital. Material will be chosen from among voluntarily submitted student proposals (which may include demo recordings).

   **Objectives:**
   a) *technical*: to gain experience in sound music production techniques, including instrument microphone placement, overdubbing and more.
   b) *aesthetic*: to gain an understanding of the processes and dynamic involved in a music production recording session.

©2002 Jack Klotz, Jr., Temple University