

CENTER FOR INNOVATIVE TECHNOLOGIES  
MASTER COURSE DOCUMENT

**AVP 280 Multi Track Recording/Multi Track Mixing**

**Course Description:** A course on techniques for multi-track recording from pre-production through final mix. Topics include: session flow and management, microphone placement, and mixing techniques.

**Prerequisites(s):** AVP 230 (minimum grade C)

**Corequisite(s):** No corequisite

Lecture Hours: 1	Lab Hours: 2	Credit Hours: 2
Lab Fee: 70	Supplemental Fee: 0	Purpose:
<input type="checkbox"/> Transfer Assurance Guide Course (TAG)		<input type="checkbox"/> Transfer Module Course (TM)
Course Format: Lec/Lab		Grading: A/B/C/D/F/I
Delivery Method: <input type="checkbox"/> Web <input type="checkbox"/> Hybrid <input type="checkbox"/> Classroom		
Semesters Offered: <input type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer		

**Course Primary Text:**

Title: The Mixing Engineer's Handbook	Edition: 3rd
Author(s): Owsinski, Bobby	

**Supplemental Materials:**

<p>You are required to purchase the following for this class. Bring these items to each lab session:</p> <ul style="list-style-type: none"><li>One Pair high quality headphones. <u>These should have a 1/4" connector as well as an adapter for a 1/8" connector (or vice versa).</u> You can expect to pay about \$100 for these phones. Don't go to Radio Shack for this item. Sony, AKG, Sennheiser, Fostex, Grado, Beyer and others make some great phones. My recommendation for "open" design headphones is the Grado Prestige Series SR 80s, available on the net from Bill Keyser at <a href="http://goodcans.com">goodcans.com</a>. If you prefer "closed" design headphones, a fine choice is the Sony MDR 7506 headphone. Sennheiser HD 280, ProFostex T20s and AKG 240s are often found in pro studios as well. <b>YOU WILL NEED YOUR HEADPHONES FROM LAB 2 ON.</b></li><li><i>A cloud storage account is a must: Dropbox free, Google Drive Etc</i></li><li><i>A Thumb drive 16 gig or higher is required.</i></li><li><i>A portable USB 3 or Firewire 800 Mac Formatted drive is required.</i> <b>ARCHIVING YOUR SESSION IS A MUST!</b></li><li>The above items: <b>YOU WILL NEED TO BRING TO EVERY CLASS</b></li></ul>
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**Course Outcomes:**

1	This is a laboratory course designed to give you hands on experience in basic multi-track recording and production, studio procedures, microphone techniques, and session management. The course will also focus on the operation Pro Tools digital audio workstation software in a Mac OS environment, and the production techniques associated with these important tools of audio production. The course includes utilization of basic audio theory, technology, history and aesthetics learned in previous courses. If you need a review discuss with the instructor.
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2	Be forewarned, this is not an easy course. It requires the aptitude and ability to work as an audio professional. Careful attention to details during labs, reading of user group forums on-line, and rigorous work on your projects is a must. If there is something you don't understand, please ask questions. —The instructor is here to help you learn and succeed.
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**Course Topics:**

Week/Day	Lecture Topics	Lab/Assignment	Lab Topic
1/1  1/2	<b>Introductions;</b> Syllabus; Fundamentals of Sound and Mixing. Mix session templates. Session setup. Dealing with latency issues Signal flow of the recording studio. External vs ITB  Documentary: Studio City.	Students receive a simple multitrack stem session. Requirements are simple EQ, and Comp with routing as described in lecture and example.	What is: Multitrack examples, basics and breakdowns. Studio Setup Basics Control Room/Patch Bays
2/1  2/2	Utilizing Playlists and loop recording Comping and decision making on the fly. Editing and enhancing drum tracks. Signal Flow Gain Staging, volume match Using templates Stereo imaging.	Basic Drum Micing Piano Micing DI recording Overdubbing Utilizing scratch tracks	Studio Setup Basics Control Room/Patch Bay Studio: Running a Recording Session: Studio/Session Do's & Don'ts
3/1  3/2	<b>Live Multitrack recording</b>  Quiz – Key Knowledge points Organizing your session Drums & Bass “In the Bowl” Lecture and example Plugins, gain structure after recording, gain matching.	Solo and vocal recording <b>Project 1</b>	Studio Setup Basics Vocal w/ accompaniment (Live in studio Talent TBD)  LAB: Lecture/example Vocal Editing/Comping Mixing & Processing
4/1  4/2	Live Jazz Trio Recording (no Vocals)  Lab mix time	<b>Project 2</b>	Studio Setup Basics Gobos and their use Drum Micing basics and techniques
5/1  5/2	Drums/Percussion Signal Flow & Phase Issues Theories & Application Drum Mix examples	Each student must mix provided drum and bass stems.	Drum Setup & Recording
6/1  6/2	Full band Multitrack recording  Full band Multitrack recording	<b>Project 3</b>  Student Selection <b>Project 4</b>	Artists TBD
7/1 7/2	Signal processing and rough mixes	Basic rough mixes Presented. Final archives turned in to aMacMaster.	Students attending the AVP 275 Mix Course will utilize the sessions recorded during this 7 week course.

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## Methods of Evaluation/Assessment

Grades will be determined on a point system as follows:

Home Assignments	05 points
Comping	05 points
Editing	05 points
Project eval 01	05 points
Project Eval 02	05 points
Studio Eval	20 points
Quiz	10 points
Final Project and archives Eval	30 points
Participation/Attendance	15 points

There will be opportunities for extra credit. Extra credit will be based upon outside reading & viewing assignments

Students recordings will be due as assigned, where we will listen to your work. At the end of the labs, students will be expected to turn in work on the aMac Master server for evaluation.

The due dates will be provided on the class calendare. No excuses will be accepted without written documentation for missing a deadline. Production deadlines are part of professional production.

Individual time management will be crucial. Waiting until the last minute to finish these projects will almost certainly cause students to miss a deadline. In the Audio Industry, missed deadlines cost money. Here, it will cost 10 percent per day late.

Late assignments will be penalized by 10 percent per day (weekends count) so if you are having problems, arrange a meeting with me so I can help you. Only if you provide written documentation (such as a doctor's excuse) will any excuses for late projects be considered.

You will be graded on:

- 1) Studio Setup & Procedures
- 2) Creative use of sound
- 3) Technical quality of recording (levels, edits, stereo imaging etc.)
- 4) Aesthetics of production values
- 5) Meeting requirements - following instruction

### PLEASE TAKE THE FOLLOWING INTO ACCOUNT

- Students will not be permitted to make up any tests/quizzes/or submit assignments for unapproved absences.
- Students are required to inform instructor if they will not be attending class or will be late due to an emergency situation.
- Late assignments/exercises will not be accepted for unapproved absences.
- Documentation may be requested for approved absences.
- Attendance will be taken at the beginning of each class meeting.
- Arrangements to turn in work due during class missed because of an approved absence will be dealt with on a case-by-case basis. It is the student's responsibility to make these arrangements.  
This must be done before the absence if possible.

Having to work is not an excuse. If your work schedule does not permit you to attend every class, drop the course.

### PROJECT SUBMISSION REQUIREMENTS:

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All projects are to be submitted on aMacMaster Server in the class folder, labeled with the class number/section/instructor. You must create your own subfolder for your submissions. Each session must have your name on it and project code. Failure to do so will result in a penalty. In the recording industry, you will be required to document your media and materials very well. In this course, we will begin getting you in the habit of doing so.

TEAM PROJECT:

You will be teaming up with another of your classmates to do your recordings. You can record anything you want. Utilizing your classmates is a very important part of the recording process. Someone will need to be out in the studio setting up microphones and moving them around, while the other person is behind the console setting up tracks and routing the signal to the proper tracks. This will also get you used to the recording process and meeting a deadline.

**DO NOT PROCRASTINATE!!!**

If you do, you will most certainly run into problems. You should begin work on your projects as soon as possible. This will also allow you to ask me questions when you run into problems. I won't be sympathetic to someone who waits to ask for help the night before an assignment is due. When you have completed the project, burn a bounce of the final stereo mix to disk as an audio CD on the first session and burn the entire project as a Data CD as the second session. Both the CD and the box should be clearly labeled with your name, course number, and session assignment in permanent marker.

**DO NOT PROCRASTINATE!!!**

**LECTURES:**

We will be covering as many aspects of audio recording as we can and placing them within their historical and cultural perspectives. We will also listen to examples of audio concepts being discussed, recordings from various eras, and possibly view excerpts of videos that relate to the course materials. We will listen to quite a bit of music as well.

This course is based upon learning by participation so attendance is mandatory. A professional attitude is also expected. This means you should be on time to the labs. Late assignments will incur a grade penalty of 10 percent per day late. No excuses will be accepted without written documentation (doctor's excuse, accident, police report, funeral program etc.). The penalty for academic dishonesty is a failing grade. Deliberately damaging any equipment will also result in a failing grade. DAW editing projects are to be done in ProTools. ProTools is the premiere Digital Audio Workstation and you need to be familiar with it if you are going to pursue a career in audio production. Many other DAWs copy from ProTools so if you learn it, your knowledge should transition to other systems relatively easily. Similarly, Macintosh computers and its operating system (OSX) are the platform of choice in most audio studios. If you have primarily been using Windows up until this point, there will be a few things to get used to, but by the end of the quarter you should have a good feel for the OS.

**AND FINALLY:**

Students are encouraged to attend live events/shows/concerts. Feel free to explore the live audio setups, including soundboards, outboard gear racks, amps, speaker setups, etc. However, if an event falls on the same night as class, the student must present purchased ticket to me prior to the event for an excused absence. Student must also provide a set list of songs performed, a list of PA gear used (soundboard & as much outboard gear list as you can see, speaker setup (vertical array or standard) and torn ticket stub). This is to verify your attendance to said event to finalize excused absence. Possibly, this could also be used as extra credit.

Ok now .... Let's have fun!

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