THE CONTEMPORARY
MUSIC CENTER
a program of the Council for Christian Colleges & Universities

SYLLABUS
STUDIO RECORDING

Instructor: Brian Cofer
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COURSE HOURS: M/T/W 10:30 a.m. - Noon

CREDIT: 3 semester credits
These recommended credits will be granted by your home institution. They will not be considered for transfer credits.

COURSE EQUIVALENCY:

This course may meet the requirements of an upper-level class in Recording, Radio, Digital Media or Computer Sciences.

OFFICE HOURS:

Our "physical and virtual doors are always open." If you have a question please don't hesitate to ask. If you would like to set up an appointment, we can do that too. As a courtesy, try not to call after 11PM or before 9AM, unless there is an emergency.

CATALOGUE DESCRIPTION:

This course introduces students to the concept of non-linear, non-destructive editing within the digital domain. Pro Tools HD 11 is used by students to assemble and record several finished master-quality recordings. Concepts include signal flow, mic placement, console automation, the recording process from basic tracks to mixing and mastering, loop creation and editing, soft sampler and MIDI control, RTAS and TDM plug-in instantiation, and building a project studio. All students will acquire enough experience to record, mix and master their own tracks for demo purposes. The students in the Technical Elective are assigned to help the artists record their songs.

OBJECTIVES

• To record several master-quality recordings.
• To record at least a rough 2-track demo of all songs written during the semester.
• The ability to listen critically to the production values of commercially recorded songs and apply those same techniques to their own recordings.
• The ability to plan for and purchase, on a limited budget, a home recording studio so that students can continue to express their music through recorded media after they have left the program.

METHODOLOGY:

It is important for all musicians to be familiar with basic recording process or they will forever be slaves to others with the ability to transfer their thoughts to recorded medium.

Again, we learn by doing. We have this theory that (while tongue in cheek) "everything you need to know is on the internet and it's all true." The free resources available on-line are staggering. With just a little initiative a student can find information on proper microphone placement, console theory, mixing techniques and a host of other topics that were, a few years ago, only found in but a handful of texts. The help menu in each software application serves as an in-room tutor, helping students forward their session without the need to 'call in the teacher' for help. For students who are self-starters and life-long learners, the information age is truly a fast track of information.

However, students need to know what information they need to know. This recording course is designed to introduce the most important concepts, immediately followed by an assignment to reinforce the ideas. The CMC has one, large, main digital state-of-the-art recording studio and several pre-production rooms; all Mac-based, running Avid ProTools software. As songs are written, edited and completed, students move to the pre-production rooms and create recorded demos of the song. Each week, faculty demonstrate a new recording principal, which moves students gradually to a place where they can record, edit and master tracks that sound 'master-quality'.

Students approach recording in this sequence of topics:

1. Signal flow & microphone theory
2. Pre-production
3. Multi-tracking
4. Mixing & automation
5. Mastering
6. Backing-up data

·Signal flow & microphone theory – signal flow is perhaps the most important fundamental concept required of every engineer. Where does the signal come from and where does it go? Being able to trace the signal from microphone, through microphone pre-amplifier to the equalization stage and so on allows students to capture/shape their sound and troubleshoot the many problems that inevitably occur during a session. Microphones are the portals through which most sound travels from the acoustic world to the digital domain. Students learn about microphone design, pickup patterns and the actual process of changing sound waves to an electric voltage and then a binary number.

·   Pre-production – studio time is valuable and expensive, so it is important for students to learn how to plan their session wisely. This includes getting the song ready for recording, choosing players and rehearsing the song, setting up   loops/samples in advance and a million other little details that threaten to de-rail a recording session.

· Multi-tracking – the modern recording session involves recording each part to a separate 'track'. Often players who contribute to a song will never see each other – they will arrive at the studio, record their part and then leave. Later, another player will arrive or, via the Internet, contribute their part from across the country. Students learn to manage and 'orchestrate a session' to take advantage of each player's strengths.

· Mixing and automation – after all of the parts have been recorded, they need to be 'mixed together' down to two tracks. Learning to adjust the relative volumes of each recorded part and using computer automation to take care of the physical task of making those changes requires a lot of practice and trial & error. Students make multiple mixes of each song to determine 'how it will play' in various environments including their car stereo, boom box, high-end P.A., etc.

· Mastering – is the process of taking all of the songs for a CD and putting them in the correct order, balancing the volume and compression of each song. There are a number of software packages that students use to experiment with the mastering process.

· Backing-up data – in all of the rush to record and the excitement of 'hearing the music in their head' it is critically important to backup data properly and consistently. Each semester some unfortunate student will lose all of their recorded work because of a hard-disc crash or some other non-act of God. When asked for their backup data, that 'deer in the headlight' looks takes over and it gets ugly. Students have to understand that their time is money. It is easy to commit 40 hours to the production of a song. Even at minimum wage, that's nearly $300.00. Some students resist spending $10.00 on a small jump drive to backup their data. You have to ask, "What is your time worth?"

COURSE REQUIREMENTS:

· Students are required to attend all classes. Habitual tardiness or absence, defined as 5 or more tardies/absences, will result in the reduction of one full letter grade.
· Preparation: Students are expected to come to class fully prepared to discuss all relevant materials.
· Participation: A successful student will regularly participate in classrooms discussions and Q&A periods. Mere passive observation will negatively impact your grade.
· Quizzes: Quizzes will be given periodically to ascertain a student's retention of previous lecture materials.
· Reading, Listening and Viewing: Extensive reading, listening and film viewing will be required. Student participation will be monitored via discussions, reports, quizzes and papers.
· Practicum: All CMC lectures are tied to hands-on projects and real-life practicum, the successful completion of which is a major component of your grade.

REQUIRED READING:

• Pro Tools Software, Digidesign, Inc.
    www.digidesign.com
    www.keyboardonline.com
• Various sources from
    http://www.mixbookshelf.com
• NED tutorial Software

REQUIRED LISTENING:

- CD-ROM, Allen Sides Microphone Cabinet, Mix Bookshelf, © 1995 http://www.musicbooksplus.com/books/mx002.htm
- Helices, www.AuriculaOnline.com

GRADING:

It is important to note that grades are not an assessment of your soul, your potential, or even hard work. They are an assessment of the quality of your work in this class. We also place great value on your attitude and demonstration of improvement.

The following is the CCCU Student Programs grading policy. This policy is administered by all CCCU Student Programs worldwide. The CCCU prides itself on the competitive nature of its admissions and its courses. Please note that a "B" is a good grade that represents "competent and complete" work. "A" grades are earned only by "superior" work. By that definition, "A" grades are a minority of grades earned by students. It is not impossible to earn an "A," but it is difficult.

A = Excellent creative and integrative work, revealing superior analysis and content.
B = Good work, competent and complete
C = Adequate work
D = Less than adequate work
F = Completely fails to meet expectations

We are always open to discussing any concerns over grading. If you have any questions or concerns, please come see me.

FINAL GRADE BREAKDOWN

25%   Attendance, preparation and participation in class
60%   Accuracy, creativity and professionalism of completed classroom and practicum assignments
        including final masters
15%   Faculty review

GRADE PERCENTAGE VALUES

Letter grades have the following percentage values:

A   93-100
A-   90-92
B+   87-89
B   83-86
B-   80-82
(same pattern continues for other letter grades)

REPORTING GRADES

Final grades for the course will be mailed to students and their home institution after the completion of the semester.

ACADEMIC DISHONESTY
In the event of plagiarism, no credit will be granted for the assignment. Other disciplinary action may follow.

COURSE SCHEDULE

Week 1:   Studio signal flow and ProTools 12

Week 2:   Pro Tools session setup, tips & tricks

Week 3:   Recording Vocals, drums and guitars

Week 4:   The Recording Process - basic tracks, overdubs, mix and mastering

Week 5:   Using GarageBand and Virtual Instruments

Week 6:   Due: Master #1
                 Critical Listening

Week 7:   Compression, EQ, FX

Week 8:   Console Automation - write, touch, latch and update

Week 9:   Individual review of Student recordings

Week 10:   Preparing a song for the studio

Week 11:   Road Trip

Week 12:   *Building a home studio*

Week 13:   Compilation CD Mixing and Review

Week 14:   Due: Master #2