SYLLABUS: MTEC 491, The Recording Console

Instructor:

Richard McIlvery: (213) 740-3224
E-mail: mcilvery@usc.edu
Office TMC 129
Mailbox: TMC 118

Office Hours: Mondays 4:00 – 5:00pm in MUS 103 ; Tuesdays 2:00-3:45pm in MUS103 or by email appointment.
Mailbox: TMC 118
Department Phone: (213) 740-3224

Introduction to recording consoles used in music designed for records and film and TV music synchronized to picture and music scoring procedures. Recording consoles serve as the basis for all computer software audio and recording programs so a firm understanding of functions and routing will increase understanding of current and future software development.

Significant objectives include:

- an understanding of important approaches to recording various types of music for film and records.
- an understanding of the history and development of consoles.
- understanding equipment requirements needed for different applications and situations.
- an appreciation of digital audio workstations control surfaces compared to analog consoles

Significant Outcomes include, but not limited to:

- Routing requirements
- Gain structure
- Workflow situations
  - Records
  - Film scoring
- Speaker configurations and uses
- Stem mixing
  - Records
  - Scoring

Requirements, Exams and Grading Information:

There will be one mid term, a final, and one course performance exam. The tests will contain mostly short answer or multiple choice. A study guide may be available the class meeting prior to each test. Tests must be taken during the scheduled times and cannot be made up at a later date.

Class Participation *10%*

Participation in all class sessions will be monitored and will count towards your final grade. Because of the specialized nature of this subject, attendance and participation are critical for understanding the material and concepts covered in this class.

A guest speaker may come to class with information specific to the Final Performance Exam. Missing classes can prevent you from completing this project in an accurate and successful fashion. Be advised!

There will be a minimum of one field trip to a recording studio and possibly one trip to a scoring facilities. These will be in addition to the regularly scheduled class meetings and attendance is mandatory and these will be counted as class meetings. Hopefully ample time of date and times will be given so arrangements can be made with other classes, internships, etc.

Attendance in all class sessions will be monitored. Missing more than two classes can lower grades proportionately. Missing more than three classes qualifies for being dropped from the course or you will receive a grade of FAIL and you must contact me before continuing.

If you cannot attend a class, it is your responsibility to get notes from BlackBoard or a classmate. If an extenuating circumstance arises that forces you to miss more than the allowed classes, contact the instructor immediately.

GRADING SUMMARY:

1. Midterm 25%
2. Course Hands-On Exercise 25%
3. Final Exam 40%
4. Participation 10%

CLASS TEXTS:
Solid State Logic **SL9000J Operators Manual** (Oxford, England: 1994) (Provided)

Huber and Runstein, *Modern Recording Techniques, 8th Edition (*Burlington, MA 2014)*,*
Focal Press, ISBN: 0240-82157-3

Class Handouts on Blackboard.

SSL 4000 Operators Manual
API 1600 Users Manual
Neve 88SR Manual
Avid D-Control Users Guide
Avid D-Command Users Guide

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Class Schedule: Because of availability of scoring stages, studios and guest speaker schedules, the following schedule will change. These changes will be posted on Blackboard.

Meeting	Date	Topic	Reading
1	8/22/16	Introduction: Lab Scheduling	
2	8/24/16	Reading Block Diagrams; reading and understanding legends; following actual and potential signal flow; Compare API, SSL and Neve block diagrams	SSL 9000 Manual Chapter 2 pg 1-23
3	8/29/16	SSL 9000J Signal Flow	Lab Assignment #1
4	8/31/16	SSL 9000J Signal Flow	SSL 9000 Manual Chapter 6, pg 1-6
5	9/5/16	**Labor Day**	
6	9/7/16	SSL 9000J Signal Flow	
7	9/12/16	Patch Bays; SSL 9000J Patch; No normal, half normal, full normal, multing; dead patch	
8	9/14/16	Split Console Design: API, Trident, Soundcraft, DDA	Lab Assignment #2; PP Handout
9	9/19/16	Console Installation; SSL numbering system and sizes; Shipping and installation; power supplies; connections; wiring; Audio connections; DL, Elco, DB25, Pro Tools connections; Neve consoles	SSL 9000 Manual Chapter 5, pg 1-7
10	9/21/16	Output Routing – Stems; 2ch, 4ch, stereo sub groups, 5.1. Stereo and four channel distribution	SSL 9000 Manual Chapter 5, pg 7- 11
11	9/26/16	Center Section; power grid, Status buttons; Master output and offset; output distribution; Subgroup masters	Lab Assignment #3;PP Handout; SSL 9000 Manual Chapter 5, pg 11-19
12	9/28/16	Center Section; monitoring; Monitor Selection and Control; Dim; cut, mono; 2 ch and 4 ch modes; External Sources and selection; Echo Returns; EFX sends	SSL 9000 Manual Chapter 5, pg 19-26
13	10/3/16	Center Section; Solos; AFL, PFL, a/PFL Minis; Solo-in-Front; solo link; ALT, Fleet, Solo Clear; Group Faders; Studio Loudspeakers and Foldback Sends; Metering	SSL 9000 Manual Chapter 3 pg 1-
14	10/5/16	Center Section; Communication, TB to Foldback and TB to SLS; Slate Level; Listen 1&2; EXT T/B; SLS, F/B A, F/B B and F/B C buttons; Auto Cue; Listen	SSL 9000 Manual Chapter 3 pg 1-10
15	10/10/16	I/O Module; Input section overview; Line, Mic, Sub Grp, Flip, Hi-Z	Lab Assignment #4SSL 9000 Manual Chapter 3 pg 10-25
16	10/12/16	I/O Module Dynamics; routing, inserts, parameters; EQ, overview, bands, Dyn Sidechain, Mon, Split; Filters; Overload; insert point	
17	10/17/16	I/O Module Dynamics; routing, inserts, parameters; EQ, overview, bands, Dyn Sidechain, Mon, Split; Filters; Overload; insert point	Lab Assignment #5

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18	10/19/16	**Mid Term I Examination – SSL 9000J Console; Console Design , Routing and Signal Flow; Master status; Center Section;**	Handout
19	10/24/16	I/O Module: Auxiliary Sends, SF, PRE and EFX routing: Monitor Input and Small Fader Section; Group/Tape Selections and the Supercue System; Large Fader Sub Grouping	Huber Chapter 11: Lab Assignment #6
20	10/26/16	Pro Tools for analog consoles; unity gain, pan, automation; I/O setup Session setup & Console Configuration; Satellite linking	
21	10/31/16	Routing; Schoenfeld Stage, Mic/Lines, Video, Communication, Cue Systems; MUS 105,106,101 Actual Session setup; recording	Lab Assignment #7
22	11/2/16	I/O Module: Continued	
23	11/7/16	Basic SSL computer operations; Project creation and flow; SMPTE code; what can be automated? Absolute; Trim; Overwrite SSL 9000J Computer Operations; Locations;	
24	11/9/16	SSL 9000J Computer Operations motors, VCAs; **Last to Drop 11/11**	
25	11/14/16	SSL959 8-Computer Operations Automation Fader grouping; hard grouping; motors on/off; Snapshots; Total Recall; storing mixes, clear mixes; channel monitoring matrix; LCR panning for film and surround	
26	11/16/16	Worksurfaces; Avid D-Control, D-Command; Mackie HUI	
27	11/21/16	D-Control; G110	Lab Assignment #8
28	11/23/16	**Thanksgiving Holiday**	
29	11/28/16	Trip to Record Plant	
30	11/30/16	Hands On Exams	
31	12/5/16	Hands On Exams	
		Final Exam Friday Dec 9, 2016	**2:00-4:00pm**

Other Important Information:

Final Exam Schedule:
Flights home and vacation plans are **not** considered valid reasons for re-scheduling a final early - so, take care when making your plans.

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards*https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/ . Academic Integrity violations will result in a failing

grade for submitted material and for the course, and possible dismissal from the Music Industry Program for majors and minors.

Class Participation

Attendance in all class sessions will be monitored and will count towards your final grade. If you are not in class you cannot participate. Because of the specialized nature of this subject, attendance and participation are critical for understanding the material and concepts covered in this class. However, missing more than two classes can lower grades proportionately. Missing more than four classes qualifies you to be dropped from the course or you can receive a grade of FAIL. If you cannot attend a class, it is your responsibility to get notes from BlackBoard or a classmate, not me. If an extenuating circumstance arises that forces you to miss more than the allowed classes, contact the instructor immediately.

Pop Quizzes:
Occasional quizzes may be given without warning to insure that the class is keeping up with assigned reading and lectures.

Classroom Behavior:
No food in class

No cell phones or computers on in class!

If you're looking at your cell phone it must be on.

There will be no sleeping, eating or drinking in class. During demonstrations and guest lecturers, there will be no talking outside of the context of classroom activities. If you feel the need to talk, please step outside until you are finished. If you are asked to leave class for any reason, you must make an appointment with to see me and discuss the matter before you will be readmitted to class. If you are asked to leave a second time, you will not be allowed to return.

Student Disability:
Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible.

DSP is located in STU 301 and is open 8:30 a.m.-5:00 p.m. Monday through Friday. The phone number for DSP is 213-740-0776.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us . This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes

reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali , which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* *http://emergency.usc.edu/* will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Bibliography

Solid State Logic **SL9000J Operators Manual**
(Oxford, England: 1994)

Solid State Logic **SL4000 Operators Manual**
(Oxford, England: 1991)

Neve 88RS User Manual Version 5.2
(London, England 2005)

API 1600 Users Manual Version 1.3
(Jessup, MD; 2009)

Avid D-Control Users Guide
(Daley City, CA)

Avid D-Command Users Guide
(Daley City, CA)

Sound for Picture - Revised Edition : The Art of Sound Design in Film and Television
Tom Kenny: Hal Leonard; 2nd edition (November 2000)
ISBN: 0872887243

Audio Post-production in Video and Film, Second Edition
Tim Amyes: Focal Press; 2nd edition (February 1999)
ISBN: 0240515420

Sound-On-Film : Interviews with Creators of Film Sound
Vincent LoBrutto: Praeger Publishers; (August 1994)

ISBN: 0275944433

Editing Digital Video : The Complete Creative and Technical Guide
Robert M. Goodman, Patrick McGrath: McGraw-Hill/TAB Electronics; Book and CD-ROM edition (September 10, 2002)
ISBN: 0071406352

Producing Great Sound for Digital Video
Jay Rose:CMP Books; 2nd Book and CD-ROM edition (December 2002)
ISBN: 1578202086 |

Making Documentary Films and Reality Videos: A Practical Guide to Planning, Filming, and Editing Documentaries of Real Events
Barry Hampe: Wiese, Michael Productions (September 2001)
ISBN: 0941188264

Contracts for the Film & Television Industry
Mark Litwak: Silman-James Press; 2nd Expanded edition (February 1, 1999)
ISBN: 1879505460

Complete Guide to Film Scoring
Richard Davis: Berklee Press Publications; (February 2000)
ISBN: 0634006363