CLASS IDENTIFICATION

TITLE: Audio and Video Production Engineering
PREFIX/SECTION: VACA 1010 1A
CREDIT HOURS: 4.5
CLASS BEGINS/ENDS: September 10, 2015 - November 19, 2015
MEETING DAY(S)/TIMES: Thursday, 8:00 – 11:40
NO CLASS DAYS: None
WITHDRAWAL DATE: November 5, 2015
CLASS LOCATION: Elkhorn Valley room 407
LAB LOCATION: N/A

CONTACT INFORMATION

INSTRUCTOR NAME: Craig C. Carlson, NCE
OFFICE LOCATION: By appointment
OFFICE TELEPHONE: (402) 457-7200 voice mail box 9181
Cell Phone: (402) 677-4696
FACSIMILE: -
EMAIL ADDRESS: ccarlson@mccneb.edu
FACULTY WEB SITE: http://faculty.mccneb.edu/ccarlson
ACADEMIC AREA: Languages and Visual Arts

COURSE INFORMATION

COURSE DESCRIPTION:
This course introduces the student to audio and video production. The student achieves competence in both audio and video systems and how to interconnect various pieces of equipment at the production, or equipment user level. Background information will be presented allowing the student to reason out connection scenarios thus making desired equipment set-up functional.

COURSE PREREQUISITES:
None

COURSE OBJECTIVES:
1. Understand the basic physiology of sight and hearing
2. Identify audio and video signal groups
3. Perform Audio and Video measurements and interpret results
4. Identify and list audio and video equipment input and output requirements
5. Determine correct connector wiring and connection variations for various equipment
CLASS IDENTIFICATION

TITLE: Audio and Video Production Engineering
PREFIX/SECTION: VACA 1010 2B
CREDIT HOURS: 4.5
CLASS BEGINS/ENDS: September 10, 2015 - November 19, 2015
MEETING DAY(S)/TIMES: Thursday, 6:00 – 9:40
NO CLASS DAYS: None
WITHDRAWAL DATE: November 5, 2015
CLASS LOCATION: Elkhorn Valley room 406
LAB LOCATION: N/A

CONTACT INFORMATION

INSTRUCTOR NAME: Craig C. Carlson, NCE
OFFICE LOCATION: By appointment
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COURSE PREREQUISITES:
None

COURSE OBJECTIVES:
1. Understand the basic physiology of sight and hearing
2. Identify audio and video signal groups
3. Perform Audio and Video measurements and interpret results
4. Identify and list audio and video equipment input and output requirements
5. Determine correct connector wiring and connection variations for various equipment
6. Discuss function of common audio and video production equipment
7. Interpret and illustrate block diagrams of audio and video production equipment and systems

REQUIRED & SUPPLEMENTAL MATERIALS:
Note taking materials

SOFTWARE/FILE SUBMISSION REQUIREMENTS:
Metropolitan Community College uses Microsoft products as part of its standard software and encourages students to do the same. You may save word-processed documents for file attachments in Microsoft Word .doc or .docx format. If your software does not allow either of these, then save files in Rich Text Format (.rtf).

CLASS STRUCTURE:
Lecture, PowerPoint slides, drawings, Internet reference, demonstrations, and supplemental materials (including videos) will be the primary method of instruction. This is NOT a hands on class.

ASSESSMENT OF STUDENT WORK

TYPES OF ASSESSMENTS/ASSIGNMENTS:
   a. Hand out material, both paper and on web site, should be read outside of class time as outlined on class schedule.

   b. Evaluation of the material presented necessary for completion of the course objectives will be accomplished using written tests and classroom discussion. Each of four tests will contain 25 questions. Each question will have a weight of four points.

   b. Assignments, if any, will be discussed in class.

   c. Tests will be returned to student after grades are recorded. If not wanted by the student they will be destroyed.

GRADING POLICY:
Evaluation of the material presented necessary for completion of the course objectives will be accomplished using written tests and classroom discussion. Each of four tests will contain 25 questions. Each question will have a weight of four points. Attendance/participation will account for a total of 110 points.

CRITERIA FOR DETERMINING FINAL COURSE GRADE:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>510 – 459 points</td>
</tr>
<tr>
<td>B</td>
<td>458 – 408 points</td>
</tr>
<tr>
<td>C</td>
<td>407 – 357 points</td>
</tr>
<tr>
<td>D</td>
<td>356 – 321 points</td>
</tr>
<tr>
<td>F</td>
<td>320 – 0 points</td>
</tr>
</tbody>
</table>
MAKE-UP TEST PROCEDURES:
Make-up tests will be allowed with no point penalty. Tests must be taken prior to the end of the quarter and must be arranged for, in advance, with the instructor. **Tests not made up/completed will be graded as “0”.**

ASSESSMENT OF STUDENT LEARNING PROGRAM:
Metropolitan Community College is committed to continuous improvement of teaching and learning. You may be asked to help us to accomplish this objective. For example, you may be asked to respond to surveys or questionnaires. In other cases, tests or assignments you are required to do for this course may be shared with faculty and used for assessment purposes.

USE OF STUDENT WORK:
By enrolling in classes offered by Metropolitan Community College, the student gives the College license to mark on, modify, and retain the work as may be required by the process of instruction, as described in the course syllabus. The institution shall not have the right to use the work in any other manner without the written consent of the student(s).

INSTRUCTOR’S EXPECTATIONS OF STUDENTS

**Required Expectations**

1. **Attendance Policy:** Students will be expected to be on time for the beginning of each class session. If the student cannot attend or will be late, contact the instructor by phone or e-mail prior to the start of class. Students who attend no class meetings up to and including the Section Census Date published in the Class Schedule at [www.mccneb.edu/schedule/](http://www.mccneb.edu/schedule/) may be disenrolled from the class. There is no appeal for this disenrollment.

2. **Expected Classroom Behavior:** Students will be expected to participate in discussions and voice their opinions about the topic at hand however, all students need to respect the opinions of others and display courteous behavior.

3. **Student E-mail:** Students will be expected to regularly check their student E-mail for resource material or information about this class. Make up tests, corrected/new handouts, and class cancellation notifications are but a few things that may be sent to you using Student email. Information about student email may be found at: [http://www.mccneb.edu/studentemail/default.asp](http://www.mccneb.edu/studentemail/default.asp) The direct link to student e-mail is: [https://mail.mccnebraska.net](https://mail.mccnebraska.net) If you do not have your own computer access to your student e-mail, you may use the Academic Resource Center at any Metro location.

**Suggested Expectations**

1. Class Participation. Classroom participation will rewarded with up to 10 points per class session.

2. Disruptive Classroom Behavior will not be tolerated. Persons being disruptive in class will be asked to leave or escorted out by public safety.
3. Portable Electronic Devices Usage will be allowed if related to classroom discussion.
4. Internet Use During Class will only be allowed if related to the current classroom topic discussion.

COMMUNICATION EXPECTATIONS:
When you communicate with others in this course, you must follow the Student Code of Conduct (http://www.mccneb.edu/catalog/studentinformation.asp), which calls for responsible and cooperative behavior. Please think critically, ask questions, and challenge ideas, but also show respect for the opinions of others, respond to them politely, and maintain the confidentiality of thoughts expressed in the class. You may also wish to review information at http://www.albion.com/netiquette.html.

ACADEMIC HONESTY STATEMENT:
Students are reminded that materials they use as sources for classwork may be subject to copyright protection. Additional information about copyright is provided on the library website at http://www.mccneb.edu/library or by your instructor. In response to incidents of student dishonesty (cheating, plagiarism, etc.), the College imposes specific actions that may include receiving a failing grade on a test, failure in the course, suspension from the College, or dismissal from the College. Disciplinary procedures are available in the Advising/Counseling Centers or at http://www.mccneb.edu/procedures/V-4_Student_Conduct_and_Discipline.pdf.

STUDENT WITHDRAWAL:
If you cannot participate in and complete this course, you should officially withdraw by calling Central Registration at 402-457-5231 or 1-800-228-9553. Failure to officially withdraw will result in either an attendance-related failure (FX) or failing (F) grade. The last date to withdraw is noted in the CLASS IDENTIFICATION section of this syllabus.

LEARNING SUPPORT

MCC's Academic Resource Centers, Math Centers, and Writing Centers offer friendly, supportive learning environments that can help students achieve educational success. Staff members in these centers provide free drop-in assistance with basic computing, reading, math, and writing skills. Self-paced, computer-assisted instructional support in reading, vocabulary, typing, English as a Second Language, and online course orientation is also available.

Detailed information about the Academic Resource, Math, and Writing Centers is in the Student Handbook, College Catalog, and online at http://www.mccneb.edu/arc/.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:
If you have a disability that may substantially limit your ability to participate in this class, please contact a Disability Support Services Counselor located in the Student Services Office on each campus. Metropolitan Community College will provide reasonable accommodations for persons with documented qualifying disabilities. However, it is the
student’s responsibility to request accommodations. For further information, please visit http://www.mccneb.edu/dss/ and/or contact Student Services.

TECHNOLOGY SUPPORT

For assistance with student email, passwords, and most other MCC technology, contact the Help Desk at 457-2900 or mcchelpdesk@mccneb.edu.

TECHNOLOGY RESOURCES:
By using the information technology systems at MCC (including the computer systems and phones), you acknowledge and consent to the conditions of use as set forth in the Metropolitan Community College Procedures Memorandum on Acceptable Use of Information Technology and Resources. It is your responsibility as a student to be familiar with these procedures. The full text of the Procedures Memorandum may be found at the following website: http://www.mccneb.edu/procedures/X-15_Technology_Resources_Use.pdf.

IMPORTANT DATES

Fall 2014

Classes begin......................................................................................................................... Sep 2 Tu
★ Census Date/Tenth Day* date .......................................................................................... Sep 15 M
Student Withdrawal Deadline to “drop” a class without receiving a grade...................... Oct 30 Th
Student Withdrawal Deadline to “drop” a class with a refund varies**......See Refund Policy ★ ★
Summer quarter “I” incomplete grades are due .................................................................... Nov 3 M
Classes end.............................................................................................................................. Nov 17 M
Fall grades due and posted by 7:00 a.m.............................................................................. Nov 20 Th
Thanksgiving Day recess/college closed ............................................................................. Nov 27-28 Th-F

Current Student (greater than 50 hours) Winter 2014 (14/WI) Registration begins........... Sep 25 Th
Current Student (less than 50 hours) Winter 2014 (14/WI) Registration begins.............. Sep 29 M
General Registration Winter 2014 (14/WI) Registration begins ......................................... Oct 2 Th

**REFUND POLICY for Credit Courses

A student is responsible for withdrawing “dropping” from a course(s) if unable to attend. Non-attendance or non-payment does not relieve a student from the obligation to pay.

An official schedule change that reduces or terminates a student’s academic credit load may entitle the student to a refund. Go to “my Services” and click “Student Accounts”, then “Tuition Modeler” to see the refund percentage received through midnight of the same day you “drop” withdraw from a class.
### SCHEDULE OF ASSIGNMENTS

NOTICE: This syllabus sets forth a tentative schedule of class topics, learning activities, and expected learning outcomes. However, the instructor reserves the right to modify this schedule to enhance learning for students. Any modifications will not substantially change the intent or objectives of this course and will conform to the policies and guidelines of Metropolitan Community College.

| Week 1 | 9/10/15 | **Sound and Hearing, Loudness & Measurement**  
Human ear, frequency & phase, decibel, measurement |
|--------|---------|---------------------------------------------------------------------|
| Week 2 | 9/17/15 | **Transducers, Block diagrams, Amplifiers**  
Magnetism, transducers, block diagrams, amplifiers  
Hand out Test 1 |
| Week 3 | 9/24/15 | **Wiring Characteristics**  
Impedance, balanced & unbalanced wiring, class of service, cable characteristics |
| Week 4 | 10/1/15 | **Equipment Interconnect, Soldering**  
Grounding, standard & nonstandard connector wiring, Special topics, Soldering |
| Week 5 | 10/8/15 | **Amplifiers, Mixers, Analog Recording**  
Amplification, mix bus, attenuators, Magnetic tape, recording process  
Hand out Test 2 |
| Week 6 | 10/15/15 | **Digital Audio**  
A to D process, D to A process, wiring considerations, other digital equipment |
| Week 7 | 10/22/15 | **Time Code, Video and Vision**  
Time code types, time code considerations, human eye, color TV spectrum, color temperature |
| Week 8 | 10/29/15 | **Cameras and Monitors**  
Cameras, Monitors  
Hand out Test 3 |
| Week 9 | 11/5/15 | **Measurement & Video Wiring**  
Waveform monitor, Vector scope, wiring |
| Week 10 | 11/12/15 | **Distribution, Switching, Recording**  
Distribution, switching, recording, playback  
Hand out Test 4 |
| Week 11 | 11/19/15 | **Digital Video & Compression**  
Digital video, storage medium, compression, discussion |