

## Ketchikan High School Course Guide

<b>Course Title:</b>	Production Technologies	<b>Course Length:</b>	Two Semester
<b>Department:</b>	Music		(may be repeated for additional credit)
<b>Grade:</b>	10-12		

- **Course Description:**

This class serves as an introductory course to 4 areas of production technology. Students may choose their area of emphasis. The available areas are MIDI technology, recording technology (multi track recording), theater technology (lighting, sound production, stage production) and video production.

- **Course Outcomes/Standards:**

### MIDI

**Standard 1.** The student will demonstrate the ability to do basic operations in music notation software.

**Standard 2.** The student will demonstrate the ability to use notation software for transcription.

**Standard 3.** The student will demonstrate the ability to use notation software to transpose.

**Standard 4.** The student will demonstrate the ability to do basic operations in music sequencing software.

**Standard 5.** The student will demonstrate the ability to do basic operations with a MIDI controlling device.

### RECORDING TECHNOLOGY

**Standard 1.** The student will demonstrate knowledge of basic recording theory, methods, equipment and terminology.

**Standard 2.** The student will demonstrate the ability to record live music in a variety of situations.

**Standard 3.** The student will demonstrate critical listening skills.

**Standard 4.** The student will demonstrate the ability to record with a variety of equipment.

**Standard 5.** The student will demonstrate the ability to mix to a final format.

### THEATER TECHNOLOGY

**Standard 1.** The student will demonstrate knowledge of basic lighting theory, methods, equipment and terminology.

**Standard 2.** The student will demonstrate knowledge of basic sound production practices, terminology, equipment and set up.

**Standard 3.** The student will demonstrate knowledge of stage methods, terminology and equipment.

**Standard 4.** The student applies theater technology in a variety of productions.

**Standard 5.** The student applies theater technology with a primary emphasis on safety.

### VIDEO TECHNOLOGY

**Standard 1.** The student will demonstrate knowledge of basic video theory, methods, equipment and terminology.

**Standard 2.** The student will do video recording in a variety of environments.

**Standard 3.** The student will learn aspects of television production.

**Standard 4.** The student will work with special video effects.

**Standard 5.** The student will demonstrate knowledge of video editing techniques.

- **Content/Performance Indicators:**

### MIDI

1.1 Complete the instructional tutorial program for *Encore* software.

1.2 Input, play back and print single part piece.

1.3 Input, print and play back multi-part piece.

2.1 Transcribe two or three part piece.

2.2 Transcribe, play and print piece with four or more parts.

3.1 Input, transpose and print out single-part piece.

3.2 Input, transpose and print out piece with multiple parts in different keys.

4.1 Complete the instructional tutorial program for Master Tracks Pro sequencing software

4.2 Sequence simple two or three part piece using Master Tracks Pro.

4.3 Sequence piece with four or more parts using Master Tracks Pro.

5.1 Complete tutorial program for Peavey DPM 4.

5.2 Use DPM 4 or Korg M-1 to operate MIDI program.

### **Recording Technology**

- 1.1 Utilize basic theory and methods in recording.
- 1.2 Use recording equipment properly.
- 1.3 Identify recording equipment and explain functions.
- 1.4 Identify and use proper terminology.
  
- 2.1 Record music in a studio environment.
- 2.2 Record music in live performance environment.
  
- 3.1 Listen critically for recording techniques.
- 3.2 Identify voicing, tracking, panning and balance by listening.
- 3.3 Write critique of recordings, critiquing above techniques.
  
- 4.1 Record with standard cassette recorder and condenser mike.
- 4.2 Record with stereo recorder and external mike.
- 4.3 Record with 4-track recorder and external mike.
- 4.4 Record with 8-track digital ADAT, mixing board and external mikes.
  
- 5.1 Mix multiple tracks to final format.
- 5.2 Ping pong tracks to increase capacity.
- 5.3 EQ, pan and balance tracks to a final format.

### **Theater Technology**

- 1.1 Identify and differentiate lighting instruments according to use.
- 1.2 Use Colortran Status 24/48 lighting board to produce lighting effects.
- 1.3 Use Colortran Encore lighting board to produce lighting effects.
- 1.4 Hang, aim and focus lighting instruments.
- 1.5 Use proper terminology for lighting.
  
- 2.1 Set up auditorium sound system with mikes, board, cables and monitors.
- 2.2 EQ auditorium sound system in a variety of sound reproduction situations.
- 2.3 Mix live sound for a variety of uses.
- 2.4 Use proper terminology for stage work.
  
- 3.1 Change fly sets with proper weighting and modification.
- 3.2 Set up and take down orchestra shell.
- 3.3 Maintain sets, equipment and prop room.
- 3.4 Use proper terminology for stage work.
  
- 4.1 Work on school productions with lighting, sound and set.
- 4.2 Work on community productions with lighting, sound and set.
- 4.3 Work on professional productions with lighting, sound and set.
  
- 5.1 Follow safety rules while working with lighting instruments, electrics and catwalks.
- 5.2 Follow safety rules while working with flown sets, weights and scene construction.
- 5.3 Follow safety rules while working with sound reproduction and electrical equipment.
- 5.4 Follow safety rules while working with orchestra shell.

### Video Production

- 1.1 Use basic video recording techniques.
- 1.2 Record with 8mm video camera.
- 1.3 Use proper video terminology.
  
- 2.1 Record concerts, plays or other performance events.
- 2.2 Record in natural lighting situations.
- 2.3 Record in artificial lighting situations.
- 2.4 Record in controlled lighting environment.
  
- 3.1 Set up television recording equipment.
- 3.2 Record event or footage for television broadcast.
- 3.3 Work with television taping team.
- 3.4 Develop and produce television quality footage for special events.
  
- 4.1 Tape with variety of lighting for special effects.
- 4.2 Tape with variety of angle, motion and perspective special effects.
- 4.3 Tape with camera generated special effects.
  
- 5.1 Transfer 8mm to VHS format.
- 5.2 Edits footage to final product (camera to recorder.)
- 5.3 Edit footage to final product (editing device.)
- 5.4 Edit footage to final product using fx.

- **Desired Affective Outcomes:**

### MIDI

1. Understand that technology is constantly changing the way music is produced, arranged and presented.
2. Understand that MIDI technology is a powerful, time-saving tool which can be used to not only assist in composition and arrangement of traditional music, but also to create new genres of music.

### Recording Technology

1. Understand that the individuals involved in the recording, producing and mixing of the music have essential roles in the production of the final product.
2. Understand that the process of recording, producing and mixing a final musical product is as much an art form as making the music itself.

### Theater Technology

1. Understand that stagecraft and theater technology are an integral part of all productions and have a direct bearing on the quality of the consumer's perception of the production.
2. Understand that stagecraft is a field calling for great creativity and teamwork that can be personally satisfying and professional rewarding.

### Video Production

1. Understand that video has become an integral part of our world that both reflects and shapes nearly every area of society.
2. Understand through doing the actual operations that what the world sees as a final video product may not accurately reflect the actual event, but that manipulation of the video image can be a powerful tool to shape perception.

- **Major Activities**

#### MIDI

Group and individual instruction in computer and controller operation  
Individual practice in computer and controller operation  
Individual projects in the required areas  
Production and performance of finished product

#### Recording Technology

Group and individual instruction in recording techniques  
Group and individual practice in recording techniques  
Research in technical and artistic areas of recording  
Individual and group projects in recording, mixing and equalizing

#### Theater Technology

Group and individual instruction in stagecraft and safety areas  
Projects involving school, community or professional productions  
Instruction and practice in lighting systems  
Instruction and practice in sound system

#### Video Production

Group and individual instruction in recording techniques  
Production of footage for television  
Individual and group projects in video shooting and editing  
Individual projects in video fx

- **Instructional Materials:**

#### MIDI

Music notation and sequencing software  
MIDI Controller operation manuals  
Sheet music for transcription

#### Recording Technology

Music recording textbooks  
Recording related periodicals  
Hi8 Video tapes for ADAT  
Audio recording software  
Recording equipment manuals

**Theater Technology**

Colortran Status lighting board manual  
Colortran Encore lighting board manual  
Stagecraft textbooks  
Lighting textbooks  
Sound system manuals

**Video Recording**

8mm video tapes  
Video recording textbooks  
Video editing textbooks  
Camera Manuals  
Video editing software

• **Technology Resources**

**MIDI**

MIDI controller keyboards (Peavy DPM 4 and Korg M1)  
Computers (Mac LC 575 or higher)  
External speakers and/or headphones  
Audio recording equipment

**Recording Technology**

Standard cassette decks (condenser mike)  
Stereo cassette decks  
4-track cassette decks  
8-track ADAT recording studio equipment  
Recording microphones  
DAT tape deck  
Power Mac Computer (6100/60AV or higher)

**Stage Technology**

Colortran Status light board  
Colortran Encore light board  
Lighting instruments  
Auditorium sound system

**Video Production**

8 mm video camcorders  
VHS camcorders  
8 mm video players  
VHS video players  
Televisions  
Video editing hardware and connectors

• **Audio-Visual Resources**

**MIDI**

MIDI instructional videos  
Video and audio recordings

**Recording Technology**

Instructional videos

*Production  
Technologies*

Video and audio recordings

**Theater Technology**

Instructional videos

Video recordings of productions

**Video Production**

Instructional videos

Video recordings of productions

Videos of movies for research and examples