



**TECHNOSONICS**

**How would you describe this sound to someone who is not here?**

**How have hand-held computers influenced the way we experience music?**

**What music might I create for this giant ensemble of “smartphones”?**

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## **ACOUSTICS AND AUDIO**

**What is sound? How is it recorded? How is it synthesized?**

**How have hand-held computers influenced the way we experience music?**

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## ELECTRONIC MUSIC HISTORY

specific technologies ↔ musical ideas

**What music could I create for this giant ensemble of smartphones?**

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## **COMPUTER MUSIC PRODUCTION**

**techniques for organizing sound using computers**



## Lab Instructors

<b>Mondays</b>	<b>Alex Christie</b>	<b>acc3xp@virginia.edu</b>
<b>Tuesdays</b>	<b>Ben Robertson</b>	<b>blr5ed@virginia.edu</b>
<b>Wednesdays</b>	<b>Becky Brown</b>	<b>rlb9fd@virginia.edu</b>
<b>Thursdays</b>	<b>Kevin Davis</b>	<b>kwd8ce@virginia.edu</b>
<b>Fridays</b>	<b>Heather Mease</b>	<b>hm5dd@virginia.edu</b>

## ACOUSTICS AND AUDIO

What is sound? How is it recorded? How is it synthesized?

## ELECTRONIC MUSIC HISTORY

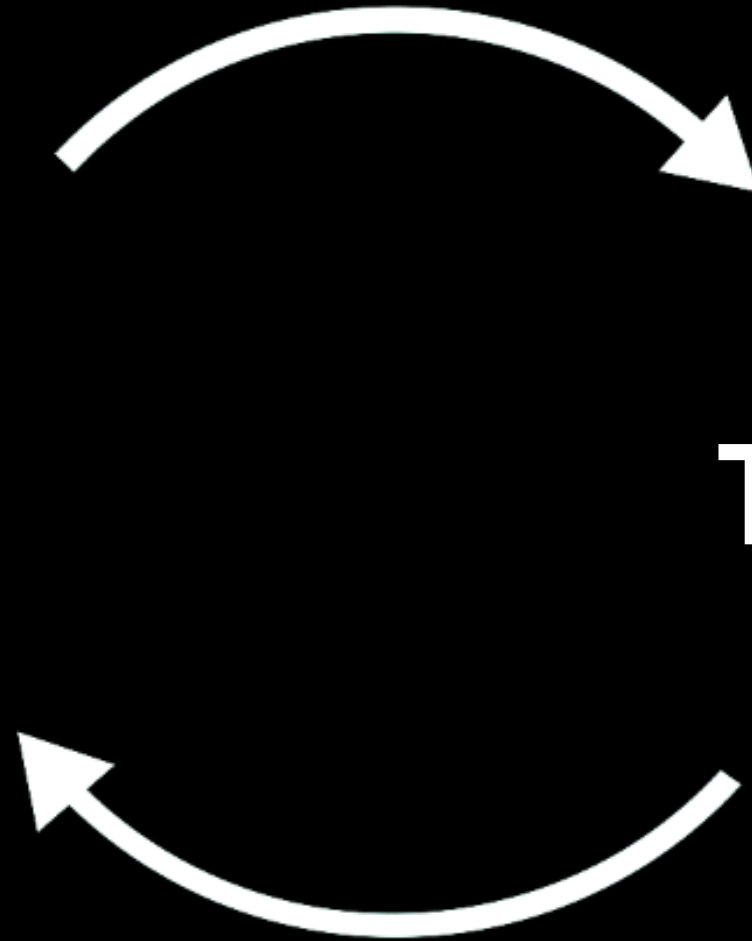
specific technologies ↔ musical ideas

## COMPUTER MUSIC PRODUCTION

techniques for organizing sound using computers

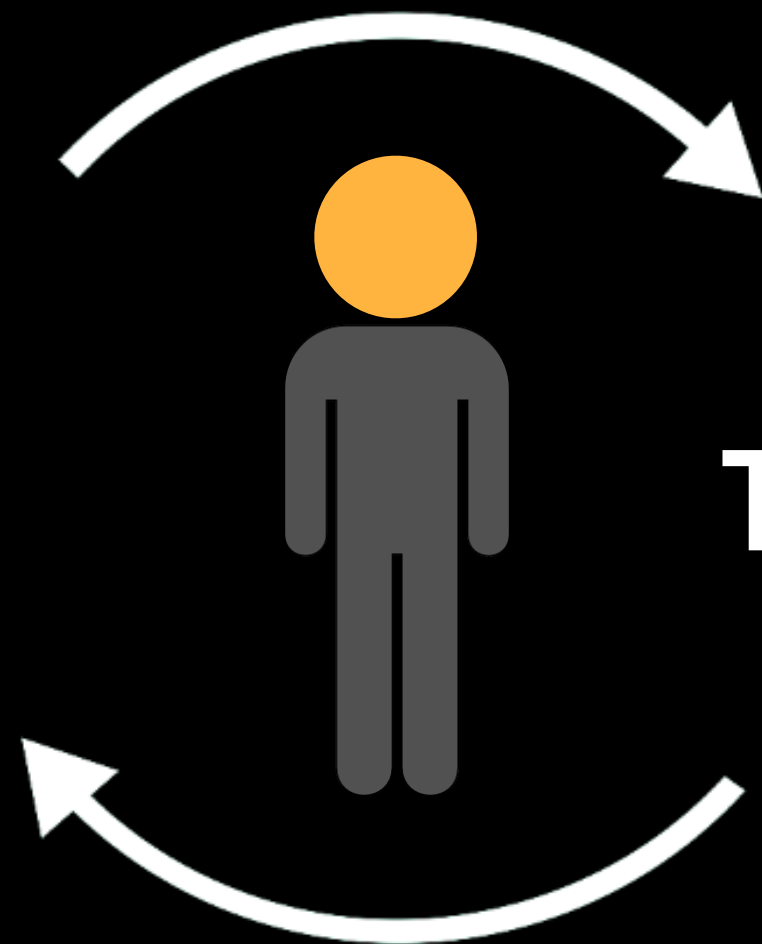
**MUSIC**

**TECHNOLOGY**





**MUSIC**



**TECHNOLOGY**





# Donna Summer & Giorgio Moroder





Daphne Oram









Maria Chavez









# GOALS

**To develop both critical and constructive perspectives on the interplay of sound and technology**

**To experiment with various approaches to organizing sound and composing electronic music**

**To build the conceptual and technical skills to better make and appreciate electronic music**

# COURSE WEBSITE

[www.technosonics.info](http://www.technosonics.info)

# TECHNOSONICS

Digital Music and Sound Art Composition

[HOME](#)

[SYLLABUS](#)

[PROJECTS](#)

[MATERIALS / TECHNOLOGY](#)

[SCHEDULE](#)



## SCHEDULE

*this schedule will shift a bit over the course of the semester — be sure to check back weekly*

### 08.24 Introduction

*no lab sections this week*

band practice. overview of course structure, logistics, and policies.

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### 08.29 Spinning records

The invention of the phonograph in 1877 allowed for sound to be mechanically recorded and reproduced. The phonograph's wax cylinders were eventually replaced by the spinning discs of the gramophone, an early record player. In tracing the evolution and influence of the record player through the 20th Century, we examine how playing records shaped music and how musical ideas, in turn, shaped the record player. We will look at how the mechanical spinning disc has been refigured in the hands of John Cage, 70s Disco DJs, early Hip-Hop musicians, and contemporary conceptual artists, introducing the feedback systems that propel this course.

# **LECTURES**

**Mondays and Wednesdays from 11:00 - 11:50**

**Wilson 402**

# **LABS**

**Labs will start the first full week (next week)**

**New Cabell Hall 268**

# ATTENDANCE

Attendance is required for both the lectures and lab/discussion sections.

exam material will be pulled primarily from the lectures.

Attendance *will* be taken in weekly lab sessions.

Outside of class: attend at least one concert/show/exhibition of electronic/computer music and do a short write-up.

# REQUIREMENTS

**Weekly Reading/Listening Assignments (website)**

**Short Concert Write Up (~1000 words)**

**Midterm (10.18) and Final Exam (12.04)**

**Lab Projects (3)**

**Final Project**



# ASSESSMENT

sound projects .....	30% (5, 10, 15)
final project .....	20%
final exam .....	15%
midterm .....	10%
concert write-up .....	10%
lab section grade .....	15%

# MATERIALS

Headphones (over-ear headphones, not ear buds)

USB data drive (at least 4GB)

Holmes, Thom. *Electronic and Experimental Music: Technology, Music, and Culture*. Fourth Edition. Routledge Press. (recommended)

## 08.29 Spinning records

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Before recording media—wire, wax, vinyl, tape, plastic, silicon, etc—sound disappeared with time, an echo, the resonance of the world itself, was the only record. But the phonograph detached sound from the here and now of its source and stored it in a material—readable and malleable. Etched into vinyl, sound can be saved, traded and manipulated, and in time, playback came to reframe play. “Sounds just like the record.”

Watch a few minutes of this [video of Grandmaster Flash](#)

Watch this [performance excerpt by Maria Chavez](#)

Watch a few minutes of [this video of DJ Sniff](#)

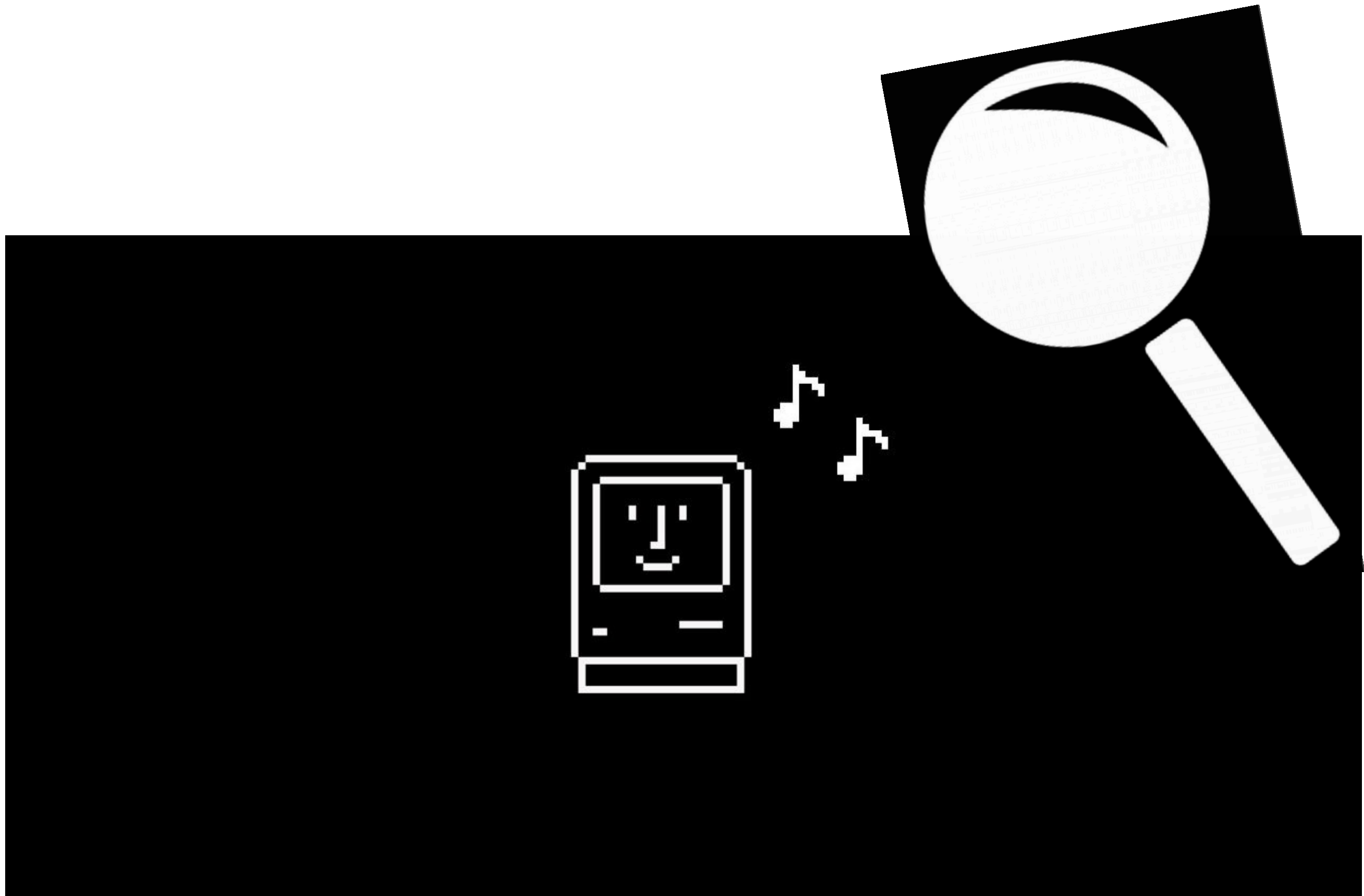
### Lab

Lab requirements, expectations, grading. Introduction to Audacity.

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## 08.31 What is Sound?

Sound can be described as waves of compression and rarefaction that propagate through the air or some other elastic medium. It is also our perception of these movements. Sound is generated







Holly Herndon — Chorus