

# College of Arts and Sciences

## Audio Technology

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### **B.A. in Audio Production**

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#### **Admission to the Program**

Formal admission to the program requires a grade point average of 2.00 (on a 4.00 scale) and departmental approval.

#### **University Requirements**

- A total of 120 credit hours
- 6 credit hours of college writing
- 3 credit hours of college mathematics or the equivalent by examination

#### **General Education Requirements**

- A total of ten courses, consisting of one foundation course and one second-level course in an approved sequence from each of five curricular areas
- No more than 6 credit hours may be taken in the same discipline

#### **Major Requirements**

- 59 credit hours with grades of C or better

#### **Course Requirements**

##### **Core Courses (32-37 credit hours)**

- ATEC-101 Fundamentals of Audio Technology (3)
- ATEC-102 Audio Technology Laboratory (1)
- ATEC-301 Digital Audio Workstations I (3)
- ATEC-311 Sound Studio Techniques I (3)
- ATEC-321 Sound Synthesis I (3)
- ATEC-401 Digital Audio Workstations II (3)
- ATEC-403 Production Mixing and Mastering (3)
- ATEC-411 Sound Studio Techniques II (3)
- ATEC-421 Sound Synthesis II (3)
- ATEC-431 Studio Management (3)
- ATEC-441 Business of the Audio Industry (3)
- ATEC-450 Audio Technology Capstone (1-6)

##### **Electives (12 credit hours)**

- 12 credit hours from the following or other courses with the approval of the department:
  - ATEC-491 Internship (1-6)
  - PHYS-305 Acoustics (3)
  - PHYS-312 Electronics I (3) *and*
    - PHYS-322 Electronics I Lab I (2)
  - PHYS-313 Electronics II (3) *and*
    - PHYS-323 Electronics II Lab (2)

#### **Area of Specialization (15 credit hours)**

- an additional 15 credit hours from an area of specialization, either communication or music:

##### *Communication*

- COMM-100 Understanding Media 4:1 (3)
- COMM-105 Visual Literacy 1:1 (3)
- COMM-330 Principles of Photography (3)
- COMM-331 Film and Video Production I (3)
- COMM-350 Digital Imaging (3)
- COMM-352 Web Studio (3)
- COMM-434 Film and Video Production II (3)
- COMM-438 Production Practicum (1-3):
  - Creative Sound Techniques
  - Techniques and Aesthetics of Editing
  - Final Cut Pro
  - Avid Editing
  - Web Development
  - Introduction to Gaming

##### *Music*

- PERF-124 Harmony I (3)
- PERF-125 Harmony II (3)
- PERF-227 Musicianship I (3)
- PERF-228 Musicianship II (3)
- PERF-320 History of Rock Music (3)
- PERF-321 Evolution of Jazz and Blues (3)
- PERF-322 Music History I (3)
- PERF-323 Music History II (3)
- PERF-324 Form and Analysis (3)
- PERF-325 Counterpoint (3)

#### **University Honors Program**

All University Honors students must complete at least 12 credit hours of advanced-level (300-level and above) Honors courses including a 3 to 6 credit hour Honors Senior Capstone Project. Students may graduate with University Honors in the major if they complete at least 12 advanced-level Honors courses including the Senior Capstone Project in the department. Each department has three levels of University Honors requirements: Level I Options (100-200-level Honors classes); Level II Options (300-level and above Honors classes); and Level III Options (Honors Senior Capstone). The department Honors coordinator advises students in the University Honors Program regarding departmental options. For more information, go to [www.american.edu/academic.depts/honors/](http://www.american.edu/academic.depts/honors/).

## **B.S. in Audio Technology**

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### **Admission to the Program**

Formal admission to the program requires a grade point average of 2.00 (on a 4.00 scale) and the approval of the department undergraduate advisor.

### **University Requirements**

- A total of 120 credit hours
- 6 credit hours of college writing
- 3 credit hours of college mathematics or the equivalent by examination

### **General Education Requirements**

- A total of ten courses, consisting of one foundation course and one second-level course in an approved sequence from each of five curricular areas
- No more than 6 credit hours may be taken in the same discipline

### **Major Requirements**

- 61 credit hours with grades of C or better

### **Course Requirements**

#### **Core Courses (29-34 credit hours)**

- ATEC-101 Fundamentals of Audio Technology (3)
- ATEC-102 Audio Technology Laboratory (1)
- ATEC-301 Digital Audio Workstations I (3)
- ATEC-311 Sound Studio Techniques I (3)
- ATEC-321 Sound Synthesis I (3)
- ATEC-401 Digital Audio Workstations II (3)
- ATEC-403 Production Mixing and Mastering (3)
- ATEC-411 Sound Studio Techniques II (3)
- ATEC-421 Sound Synthesis II (3)
- ATEC-431 Studio Management (3)
- ATEC-450 Audio Technology Capstone (1-6)

#### **Core Science Courses (20-21 credit hours)**

- PHYS-100 Physics for the Modern World 5:1 (4) *and*  
PHYS-200 Physics for the New Millennium 5:2 (3)  
*or*  
PHYS-105 College Physics I 5:1 (4) *and*  
PHYS-205 College Physics II 5:2 (4)  
*or*  
PHYS-110 University Physics I 5:1 (4) *and*  
PHYS-210 University Physics II 5:2 (4)
- PHYS-305 Acoustics (3)
- PHYS-312 Electronics I (3) *and*  
PHYS-322 Electronics I Lab I (2)
- PHYS-313 Electronics II (3) *and*  
PHYS-323 Electronics II Lab (2)

### **Electives (6 credit hours)**

- 6 credit hours from the following or other courses with the approval of the department:  
ATEC-441 Business of the Audio Industry (3)  
ATEC-491 Internship (1-6)  
PHYS-305 Acoustics (3)  
COMM-105 Visual Literacy 1:1 (3)  
COMM-438 Production Practicum (3):  
Creative Sound Techniques  
PERF-120 Music Fundamentals (3)  
PERF-124 Harmony I (3)  
PERF-125 Harmony II (3)  
PERF-227 Musicianship I (3)  
PERF-228 Musicianship II (3)

### **Area of Specialization (15 credit hours)**

- an additional 15 credit hours from an area of specialization, either computer science or physics:

#### *Computer Science*

- CSC-280 Introduction to Computer Science I (4)
- CSC-281 Introduction to Computer Science II (3)
- CSC-330 Organization of Computer Systems (4)
- CSC-520 Algorithms and Data Structures (3)
- CSC-521 Design and Organization of Programming Languages (3)
- CSC-565 Operating Systems (3)

#### *Physics*

- PHYS-365 Waves and Optics (3)
- PHYS-370 Modern Physics (3)
- PHYS-430 Classical Mechanics (3)
- PHYS-440 Experimental Physics (3)
- PHYS-450 Electricity and Magnetism (3)
- PHYS-470 Introduction to Quantum Mechanics (3)

### **University Honors Program**

All University Honors students must complete at least 12 credit hours of advanced-level (300-level and above) Honors courses including a 3 to 6 credit hour Honors Senior Capstone Project. Students may graduate with University Honors in the major if they complete at least 12 advanced-level Honors courses including the Senior Capstone Project in the department. Each department has three levels of University Honors requirements: Level I Options (100-200-level Honors classes); Level II Options (300-level and above Honors classes); and Level III Options (Honors Senior Capstone). The department Honors coordinator advises students in the University Honors Program regarding departmental options. For more information, go to [www.american.edu/academic.depts/honors/](http://www.american.edu/academic.depts/honors/).

## **Minor in Audio Technology**

- 22 credit hours with grades of C or better and at least 12 credit hours unique to the minor

### **Course Requirements**

- ATEC-101 Fundamentals of Audio Technology (3)
- ATEC-102 Audio Technology Laboratory (1)
- ATEC-301 Digital Audio Workstations I (3)
- ATEC-311 Sound Studio Techniques I (3)
- ATEC-401 Digital Audio Workstations II (3)
- ATEC-411 Sound Studio Techniques II (3)
- 6 credit hours from the following
  - ATEC-321 Sound Synthesis I (3)
  - ATEC-403 Production Mixing and Mastering (3)
  - ATEC-421 Sound Synthesis II (3)
  - ATEC-441 Business of the Audio Industry (3)
  - ATEC-450 Audio Technology Capstone (1–6)