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**Studios Mission**

The studios at Penn State were created for the teaching and research needs of faculty, staff, and students of the School of Music and School of Theatre. Through a variety of courses, the studios provide state-of-the-art facilities and equipment for students to receive training in recording techniques, electronic music composition, sound design, and general music technology topics. The studios also provide first-rate recording and mixing facilities for performance faculty and students to carry out recording projects with staff and student engineers.

**General Studio Policies**

Anyone found to be in violation to the studio policies or any other studio rules outlined in this handbook will lose their studio access. If this is a student enrolled in a course, they will be responsible for completing the projects outside of the studio with personal equipment. Remember, the studios and studio equipment are here for YOU - please treat these spaces and equipment like your own.

- No food or drink allowed in any studios. Food and drinks must be left on the floor just inside the studio door.
- Studios must be set to “default” setups at the end of each session/class.
- Only approved engineers may conduct sessions in the studios.
- Approved student engineers may only be in the studios during formally booked sessions. Having swipe card access does NOT mean that student engineers can enter and use the studios at any time.
- The posted studio schedule must be strictly adhered to.
- Students may only use the studios for class work during their pre-scheduled studio times determined during the first week of classes.
- Studio, storage space, and mobile rig inventory must remain as outlined in this document for the entirety of the academic year. Removing any equipment from Studios A, B, or C is not permitted for any reason.
- Shared equipment from the storage room used for sessions or classes in Studios A, B, or C must be returned to the designated place in the storage room immediately after use.
- Students are NOT to change any software preferences or routing for any reason.
- Students are NOT to unplug any patched-in cables from any hardware for any reason (with the exception of headphone and microphone cables).
- The equipment use outlined in the “studio upkeep and maintenance” section of this handbook must be followed at all times.
Personnel

Studio Team Directory

Baljinder Sekhon  
   bss5477@psu.edu  
   814-863-0419
Curtis Craig  
   cjc18@psu.edu  
   814-883-7819
Bob Klotz  
   rwk17@psu.edu  
   814-360-6221 (cell)
Jonathan Dexter  
   jondexter@gmail.com  
   512-577-9759 (cell)

Approved Engineers

There are two types of approved engineers: staff and faculty members who have full access to the studio and are able to run sessions of any type (compensated directly by the artist), and student engineers who have been certified to run recording sessions in studios A, B, C, and off-site with the Mobile Rig (compensated by the school).

Students can become approved engineers by completing the following steps:

1. Completion of 2 courses from the following lists with a grade of B or better. A copy of the student’s degree audit may be requested for confirmation:
   c. Note: all students must complete MUSIC 453 to be considered for an approved engineer position.

2. Pass a qualifying Studio Certification Exam consisting of two parts:
   a. Setting up for a recording session (actual or mock). The student will be given a session consisting of multiple, mixed sources with a modest level of complexity. Without prompt, they will setup the session in either Logic or Pro Tools software with properly configured inputs and bussing, setup the appropriate microphones and stands in optimal placements, connect line sources as needed, set appropriate input levels at preamps, react to situations prompted by the tester, back up the session, disassemble all hardware and return the entire studio to its default setting.
   b. Passing an oral test including questions on microphone types, uses and handling, pre-amplifiers, signal processors, physical connectors, studio maintenance and care, mixing and editing concepts, studio rules, studio routing, etc.
All approved engineers must be set by the end of the first week of fall classes for the academic year. Approved engineers will not be added in the middle of an academic year. Only those listed below in this handbook have studio access for the current academic year. Students should plan to take their qualifying exams in a timely fashion, administered by either Baljinder Sekhon or Curtis Craig. Once a student is an approved engineer, they can renew their status for the following year by attending a two-hour recertification session with Baljinder Sekhon to learn about upgrades and changes made to the studio over the summer.

**Approved Engineer for Hire** (paid by artist)
The following engineers can be requested for studio sessions. For these engineers, the artist is responsible for negotiating a fee and paying the engineer directly.

- Bob Klotz  
  contactbob@klotzaudio.com
- Jonathan Dexter  
  jondexter@gmail.com

**Approved Student Engineer** (paid by school)
The following are students who are approved to serve as engineers in Studio A, B&C, and E (mobile recordings) for the 2019-2020 academic year. These engineers will be paid by the school for sessions booked by music faculty and students.

- Olivia Girdano  
  olg5015@psu.edu
- Alex Pregel  
  ajp6158@psu.edu
- Marcus Kielman  
  mxk5593@psu.edu
- Thomas Ginnona  
  tkg5062@psu.edu

**Studio Assistant (graduate TA)**
Beginning in fall 2020, one graduate Composition TA will be working as a studio assistant. A second TA will be added in Fall 2021.

**Students**
The only students with access to the studios are those enrolled in a course that meets in the studios or approved engineers. Students enrolled in a studio course may only use the studio designated by their professor during pre-determined individual work times and lab times. Approved engineers may only use the studio designated by the session scheduler during the booked session times. Each student will be assigned an individual studio work time during the first week of each semester.
Studios and their uses

The studios at Penn State are professional quality recording studios with control rooms and recording spaces. Studio equipment includes a wide variety of new and vintage microphones of all types, pre-amps and audio software as well as headphone monitoring and surround-sound playback. Their primary purpose is for music technology, composition, and sound design instruction, and recording projects for the faculty and staff of the School of Music and School of Theatre.

The studios are available for School of Music and School of Theatre faculty, students, and staff who wish to use the space for purposes of teaching or research. As per University policy FN14, the studio is meant for University-related work only, and may not be used for personal gain or outside of instructional requirements.

Students and faculty may be recorded in the studios if:

1. They are a current faculty member or student in the School of Music or School of Theater.
2. The recording pertains to their scholarly or professional work.

Engineers may record sessions in the studios if:

1. They are an approved engineer for hire.
2. They are an approved student engineer.

**Studio A**

Studio A consists of a large control room and large recording space. Studio A is used for courses scheduled in room 15 MBII, individual student work for advanced composition and sound design courses, tracking sessions that require a piano or the space provided in Studio A, quadraphonic projects, and select mixing sessions. The majority of individual student work, small-scale recording sessions, and mixing sessions will take place in Studio B & C.

**Studio B & C**

Studio B consists of a control room connected to a small recording space (Studio C). Studio B and C are used for courses scheduled in room 17 MBII, individual student work for general and introductory music technology courses, small-scale recording sessions, and mixing sessions.

**Studio D**

Studio D (room 19, MB II) consists of two private workstations for personal use with headphones and personal laptops. Studio D serves primarily as the TA offices where TAs meet with students for individual instruction and assistance. With pre-approval, students may be given
access to studio D for individual mixing, composition, and other projects relating to course work or sessions at the Penn State Studios.

**Studio E (mobile rig)**

Studio E consists of a rolling rack that can be used by approved engineers for on-site recording sessions in School of Music and School of Theatre spaces. The mobile rig is capable of recording single instruments/voice to full orchestras and other large ensembles. Studio E is booked through the same process that the fixed studios are booked through (see below).

**Storage Room/Workshop**

Room 14 (MB II) is the designated studio storage room and workshop. The storage room houses all equipment that is shared between Studios A, B, C, and E (mobile rig). The storage room houses the mobile rig. The workshop area is only used for equipment cleaning and repair. Only members of the studio team and approved engineers are allowed access to [Room Number]. For details about what equipment can be used in this room, see the Storage Room/Workshop Inventory section below.
Studio Schedule and Use

General Studio Schedule

● All studios have a set schedule for each semester.
● The schedule consists of classes, student work time, and designated session times.
● When a class is taking place in Studio A, or B&C, the adjacent studio may NOT be used for sessions, other classes, or student work time.
● Recording sessions should not take place in Studio A and B/C simultaneously, but can be scheduled in extreme circumstances. While not preferred, it is permissible for a recording session in Studio A and mixing session in Studio B to take place simultaneously.
● Each student enrolled in a studio course will schedule their recurring weekly individual work time during the first week of classes.
● Student’s individual work time should be treated as a regular weekly event in the student’s calendar.
● Students will NOT be permitted to use the studios for individual work outside of the predetermined individual time.
● Sessions will occur at set times each week. When sessions are booked, artists and engineers must select from a preset list of options.
● Session may NOT be booked ad hoc, at times outside of the preset session times.
● Engineers may NOT use the studios outside of formally booked sessions.

Classroom/Educational Use

The following music and theatre courses require the use of the studios, at the discretion of the course instructor:

● Special Topic (197): 1st Year Seminar in Music Technology
● MUSIC 453 Recording Studio Training
● INART 055 History of Electroacoustic Music
● INART 258 Fundamentals of Digital Audio
● THEA 484 Sound Recording Techniques
● MUSIC 458 Electronic Music Composition
● MUSIC 451 Computer Programming for Musicians
● MUSIC 452 Sound Synthesis

Individual/Educational Use

Students will have the opportunity to sign up for a weekly two-hour studio time during the first week of classes. This is the ONLY time the student will have to use the studio for individual work on their class assignments; students are advised to take this time seriously and use this time efficiently. This is a recurring, set time each week and must be held in Studio B&C.
Students in advanced composition and sound design class may be given permission from the instructor to use Studio A for their individual work time.

**Recording**

Recording sessions are booked through the online Studio Reservation Form. During booking, artist may request a specific engineer, studio location, and date. Recording session times exist in recurring weekly blocks. Recording sessions can only take place during the pre-scheduled weekly blocks. Artists can request up to three recording session times in a single week for large-scale project. Whenever possible, artists and engineers are encouraged to use Studio B - Studio A should only be used when the nature of the ensemble or work being recorded demands the space provided in A. Studio sessions can take place during the following days and times:

- Monday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Tuesday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Wednesday: NO SESSIONS
- Thursday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Friday: NO SESSIONS
- Saturday: 8:00am-1:00pm, 1:00pm-7:00pm, 7:00pm-11:00pm
- Sunday: 8:00am-1:00pm, 1:00pm-7:00pm, 7:00pm-11:00pm

**Editing, Mixing, & Mastering Sessions**

Mixing sessions are booked through the online Studio Reservation Form. During booking, artist may request a specific engineer and date. Mixing session times exist in recurring weekly blocks. Mixing sessions can only take place during the pre-scheduled weekly blocks. Artists can request up to two mixing session times in a single week for large-scale project. All mixing sessions must take place in Studio B - Studio A may only be used in extreme circumstances and with special permission. Studio sessions can take place during the following days and times:

- Monday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Tuesday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Wednesday: NO SESSIONS
- Thursday: 6:00pm-8:00pm, 8:00pm-11:00pm
- Friday: NO SESSIONS
- Saturday: 8:00am-1:00pm, 1:00pm-7:00pm, 7:00pm-11:00pm
- Sunday: 8:00am-1:00pm, 1:00pm-7:00pm, 7:00pm-11:00pm

**Booking a Recording Session**

Studios must be booked via the Studio Reservation Form:

[https://music.psu.edu/form/studio-reservation-form](https://music.psu.edu/form/studio-reservation-form)
Winter and Summer Use

Studios may be available for use by approved student engineers during the winter (December 15-January 10) and summer, with the permission of Baljinder Sekhon. All winter and summer sessions or other studio use are booked ad hoc and not through the online Studio Reservation Form. Students who are not approved engineers will not have access to the studios during the winter and summer, as this is when the majority of studio maintenance and upgrades take place.
Studio Equipment

The following is a list of inventory for each studio and space. Equipment may not be moved out of Studios A, B, or C for any reason. Shared equipment kept in the storage room can be used to supplement the equipment in A, B, C, or E and MUST be returned to storage immediately after use.

Studio A Inventory

In addition to the equipment listed below, any of the equipment from the Storage Room inventory can be used for Studio A sessions. The equipment listed below may NOT be removed from Studio A for any reason.

On Desk: PreSonus Faderpoint 16 Production Controller, PreSonus Central Station Remote, Drawmer CMC7 Surround Controller, LG Ultra Wide Screen Display
Rack Hardware:
- PreSonus Central Station
- MOTU 838mk3 Interface
- MOTU 8M Interface
- 2 Golden Age Pre-73 MKII pre amplifier
- SYSTEK MPX-4A 4-channel pre amplifier
- Avalon Vacuum Tube 737sp pre amplifier
- Universal Audio 4-710d 4-channel pre amplifier
- 2 Power Conditioners
Speakers:
- Genelec Espressro 4.1 System with Subwoofer
- Focal CMS 65 stereo monitors
- Avantone Cubes reference monitors
- Additional Genelec Subwoofer for stereo system
Software: ProTools, Logic X, Kontakt 12, Reference 4
Microphone Stands: 4 boom, 2 oversized boom, 2 straight, 2 short sticks
TRS Cables: 4 TRS Cables
XLR Cables: 10 XLR cables (5 long, 5 short)
Headphones: 6 AKG K550 Reference Headphones, 6 headphone extensions
Microphones (in cabinet):
- TOP SHELF:
  - SHURE SM-57
  - Electro-Voice PL6 (dynamic, super cardioid)
  - Pair: Neumann KM 184 (condenser)
  - Lawson (large diaphragm condenser, switchable pattern)
  - Pair: Cascade Vin-Jet (ribbon with stereo bar)
  - Pair: Warm Audio WA-14 (condenser)
- MIDDLE SHELF:
  - Pair: Kel HM-3C (condenser)
  - Pair: CAD M179 (condenser)
BOTTOM SHELF:
- Pair: MXL-4000 (condenser, switchable pattern)
- Pair: SHURE KSM44A (condenser, switchable pattern) [different cases]

Instruments and other equipment: 6 Furman Headphone Mixing Stations, 2 DI Boxes, 1 Stereo Bar, 3 pop filters, 2 extra condenser shock mounts, 9 moveable acoustic panels, Steinway Grand Piano, 3 guitar amps, 8 plastic/metal chairs, 2 mesh chairs, Insignia LED TV (on wall in control room), M-Audio Hammer88, Keyboard Table Stand.

**Studio B & C Inventory**

In addition to the equipment listed below, any of the equipment from the Storage Room inventory can be used for Studios B & C sessions. The equipment listed below may NOT be removed from Studios B & C for any reason.

On Desk: M-Audio Keystation Pro 88, LG Ultrawide Display
Rack Hardware: PreSonus Central Station, Powerplay Pro-XL Headphone Amplifier, Stellar Labs Power+ conditioner, Avid 003 Rack+ interface
Speakers: Stereo Equator D5 Reference Monitors, Genelec Subwoofer
Software: Logic X, Pro Tools

Cabinet:

Microphones:
- Sure Beta52A (bass drum mic)
- 4 Audix D4 Drum Microphones (with clips)
- MXL 4000 (large condenser, switchable pattern, large shock mount)
- Pair: Audix i5 (dynamic, with clips)
- Pair: Rode NT5 (small condenser, with clips)
- Pair: SudioProjects B3 (large condenser, switchable pattern)
- CAD M179 (condenser)
- NADY RSM-2 (ribbon mic) - stored upright

Microphone Stands: 2 boom, 2 straight, 1 short stick
XLR Cables: 5 XLR Cables (3 long, 2 short)
Headphones: 2 PreSonus Reference Headphones, 2 headphone extensions

Other Cabinet Equipment: 2 pop filters, 2 DI boxes, stereo bar

Instruments and other equipment: 2 music stands, 4 cloth chairs, 1 plastic/metal chair, 1 black cushion chair.

**Studio D Inventory**

Headphones: 2

Instruments and other equipment: 2 computer monitors, 2 keyboard/mouse combinations, 2 large desks, 1 cabinet
Studio E (Mobile Rig) Inventory
In addition to the equipment listed below, any of the equipment from the Storage Room inventory can be used for Mobile Rig sessions. The equipment listed below is designated for the Mobile Rig (off-site recordings) and may NOT be used for sessions in Studios A, B, C, or D.

 Speakers: 4 QSC K12.2 Active Speakers (in cases/wheels)
 EWI Flight Case: 16-channel snake
 Gator Rack: MOTU 8M
 Top Rack Drawer:
 - Pair: SHURE KSM141 (small condenser)
 - Pair: MCA SP1 (large diaphragm condenser)
 - Stereo Bar (wesdooley)
 - ATH-M40x Headphones (in bag)
 Bottom Rack Drawer:
 - Bluemin Stereo Bar
 - Sound Devices MixPre-3M
 - AKG K-550 Headphones (in case)
 Software: users provide their own laptop and software until studio obtains a dedicated laptop for the mobile rig.
 Microphone/Speaker Stands: Orbitz Decca Tree, OnStage Large Boom, 2 StageMate Large Speaker Stands, Atlas Sound oversized boom (with wheels), 2 SHURE S15A telescoping straight microphone stands.
 XLR Cables: (use from shared storage inventory)

Storage Room/Workshop Inventory
The following equipment is available for use in either studio A, B, C, or the Mobile Rig. Equipment must be returned to the storage room immediately after use. This equipment is kept in the storage room because it is meant to be shared as needed between all of the studios.

 Microphones:
 - CAD Trion 8000 (tube mic, switchable pattern)
 - MXL PS-960 (tube, cardioid)
 - Electro Voice RE-20
 - Heil PR-30 (condenser)
 - MXL 990 (condenser) & MXL 991 (condenser) [black case together]
 - Pair: MXL 603S (small condenser)
 - Golden Age RS1 (active ribbon)
 Headphone Amps: 6 ARTcessories 4-channel headphone amp
 Headphones: 2 ATH-M40X Headphones, 4 PreSonus Headphones, 1 Monoprice Headophone, 1 AKG K-550 Headphones
 Microphone Stands: 4 boom, 3 straight, 1 short, 1 oversized boom, Mlrizo Piano Microphone Mount.
 XLR Cables: 13 XLR Cables (various lengths)
 Instruments and other equipment: 5-piece Gretsch drum kit and hardware (no cymbals), 1 X-style keyboard stand, 1 table-style keyboard stand, 1 rack-style keyboard
stand, 3 M-Audio Keystation 88es, Yamaha W7, Yamaha CS1x, Yamaha VL1, 1 laptop table on wheels, 1 5’ folding table, 4 DI boxes, collection of microphone clips, collection of XLR adapters.

**Checking Out/Borrowing Studio Equipment**

The Mobile Rig can be “booked” for a session through the same process used to book sessions in studios A, B, & C. When the Mobile Rig is booked, the user is responsible for ALL parts of the mobile rig, even if only one microphone is being used. Single components of the Mobile Rig cannot be checked out individually. Equipment from Studios A, B, & C MAY NOT be checked out to students, faculty, or staff for any reason. The equipment listed in the inventories above must always remain in the designated studio.

**Studio Upkeep and Maintenance**

**Microphone Handling**

Microphones must always be in a case, in your hand, or on a stand. Microphones should NEVER be placed on the ground, a chair, piano, amp, or anywhere other than case, stand, or hand.

**Microphone Cables**

Cables must be coiled, velcroed, and hung in the designated locations after each session/class. The proper over/under coiling technique must be used when coiling microphone cables. Cable connectors should NEVER be dropped onto the floor when uncoiling cables for a session/class.

**Microphone Stand Handling**

Microphone stands from the storage room must be folded completely and placed in the designated location after any session or class that uses them. Microphone stands from Studio A must remain standing with the base unfolded and placed in the designated location after any session or class that used them. Boom stands in Studio A must have boom arms folded straight down when the are stored. Microphone stands in Studio B & C must be completely folded up and placed in the designated location after any session or class that used them.

**Mounting Microphone Clips and Shock Mounts**

When mounting microphones, the clips or shock mounts must first be securely mounted to a microphone stand. Clips and shock mounts must NEVER be turned in an effort to thread them onto a microphone stand. The proper way to thread a clip or shock mount onto a stand is to hold the clip/mount firmly in one hand while turning the microphone extension pole with the thread into the bottom of the clip or shock mount.

**Studio Start Up**
Refer to the posted startup guide for each studio. The order that gear is powered on is crucial to the success of a smooth start to your session.

Studio Shutdown
Refer to the posted shut down guide for each studio. All monitor controls and hardware volume knobs MUST be turned all the way down before beginning the shutdown process and leaving the studio.

Studio Upgrades
At the end of each academic year, the studio team will meet to decide on hardware and software upgrades for the studios. If any studio user has suggestions for new gear that they believe would be used widely and would benefit studio engineers and/or artists then requests can be made to members of the studio team for consideration.

Troubleshooting and Reporting Issues

Students are expected to treat all studio equipment as if it’s their own. Following the policies in this handbook should lead to a fully operational and safe studio environment. However, if ANY issues are observed or discovered then they should be addressed immediately upon occurrence or discovery. There is nothing worse than a known problem going unreported and negatively affecting a class or session experience. No matter how small the issue is perceived to be, all studio users are required to report any issues via the online Reporting Studio Issues form.

Report issues here: https://music.psu.edu/form/report-studio-issue

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