**Surgical Subspecialty Experience Program (SSEP) Handbook**

The SSEP is a longitudinal project focused on understanding what drives medical students’ interest in surgical subspecialties by providing and measuring the impact of pre-clinical exposure on students’ interest.

The SSEP strives to help provide pre-clinical shadowing experiences so that students can develop their own interest or disinterest in surgical subspecialties. Early determination of one’s interest in competitive fields will allow students the time to pursue mentorship, research experiences and opportunities relevant to their field of interest.

This handbook intends to provide the relevant information for establishment of the SSEP protocol at your institution.

Please contact [SSEPcontact@med.uvm.edu](mailto:SSEPcontact@med.uvm.edu) with any questions.

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## Necessary Program Approval

### Dean of Medical School

### Director, Department of Surgery

## Approved Student Access to:

* Operating Rooms
* Clinics
* Surgical Skills Training Suite \*\*or equivalent\*\*
* Skills Session Funding Source Identified

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* + 1 x Lead Attending
  + 1 x Lead Medical Student(s)
  + 4 ≥ First Year Medical Students
  + Surgical Attendings
  + Lead Scheduler(s):
  + Surgical Training Suite Manager

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**IRB DOCUMENTS**

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The SSEP can be implemented at your institution without IRB approval. However, approval is necessary to contribute to the larger efforts of the LCOM-UVM SSEP.

***Provided Documents and Templates***

1. IRB Exempt Protocol—Necessary Information
2. Surveys
   * Pre-SSEP
   * Post-Experience
   * Post-SSEP
3. Consent forms
   * Medical Student Information Sheet
   * Resident, Fellow, Attending Implied consent
4. Recruitment material
   * Handout
   * Student Newsletter Recruitment Post

**SSEP EXPERIENCES PROVIDED**

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1. ***Operating Room Shadowing***
2. ***Clinic Shadowing***
3. ***Surgical Skills Sessions***

Sessions should focus on providing students hands-on opportunities to develop their dexterity while also providing additional insight into the surgical subspecialty being highlighted.

At LCOM-UVM, sessions are conducted in a Cadaver Surgical Skills Training Suite which is a resource of the UVMMC-Department of Surgery. The suite is equipped as a mock OR with surgical instruments, high speed drills, and microscopes.

Examples of Skills Sessions run through the LCOM-UVM SSEP:

* Face lifts
* Deep Inferior Epigastric Artery Perforator (DIEP) Flaps for breast reconstruction
* Micro suturing practice
* Radial Forearm free flap harvest
* Scapular flap harvest
* Neck dissection
* Ureteroscopy
* Skull Base endoscopy
* Cranial bolts and ventriculostomy
* Craniotomy
* Heart dissections
* Coronary artery bypass grafts
* Stent placement

\*\*Funding from the Department of Surgery was required to pay for the Surgical Skill Sessions which include hourly staff compensation, renting the space, and purchasing the equipment. At LCOM-UVM, the estimated budget is an average of $1,000 per session.

It is critical to explore all potential funding sources at your institution such as:

* Department of Surgery
* Individual Surgical Subspecialty departments
* College of Medicine
* Institutional grant

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**PERSONNEL & ROLES**

***Lead Attending***

A single Lead Attending will be the Principle Investigator and the main liaison between the SSEP personnel and medical center.

***Lead Medical Student(s)***

The Lead Medical Student(s) will be the IRB PI Proxy and will serve as the primary point of contact between the medical student research team and the Lead Attending.

***First Year Medical Student Research Team:***

1. Calendar Coordinator

This role is responsible for managing the Participant Calendar.

Each Friday, the Calendar Coordinator should:

1. Add Events to the Participant Calendar
   * Student sign-ups should remain open until midnight Wednesday of the Week prior to the scheduled experience
   * Using the Master Calendar for reference, creating shadowing sign-ups with the following information:
     + Timeframe:
       - AM session (7AM-12PM)
       - PM Session (1PM-5PM)
     + Type of experience:
       - Shadowing
       - Skills Session

\*\*Type of Experience (OR vs. clinic) and subspecialty are blinded to participants to avoid selection bias.

1. Shadowing Assignments Coordinator

This role is responsible for ensuring that medical student shadowing experiences are controlled for type (OR vs. clinic) and subspecialty.

Each Thursday, the Shadowing Assignment Coordinator should:

1. Using student’s indicated availability, assign each student to a shadowing experience
   * Utilize the Participant Tracking excel sheet
     1. (Excel Templates>Workflow>Longitudinal Participant Tracking)
2. Send Confirmation Email to Surgical Schedulers and Attendings, CC’ing the Surgeon and Lead Scheduler, regarding newly scheduled shadowing experiences with the following information:
   * Student’s name
   * Surgical Attending’s name
   * Shadowing time slot
   * Type of Experience (OR vs. Clinic)
3. Email Correspondence Coordinator

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This role is responsible for weekly emails to participants.

Each Sunday, the weekly Email Correspondence Coordinator should:

1. Using, the Confirmation of Experience to Participants Email Template, email students participating in experiences during the coming week the following information:
   * + Date and time of experience
     + Physician (name and specialty) assigned
     + Location of experience (e.g. clinic office address or OR number) with directions as needed
     + Reminder to complete the Post-Experience survey
2. Create and distribute Weekly Shadowing Experience Sign-Up Reminder which should include the following:
   * + Date range of currently available shadowing experiences
     + Link to the Participant Calendar sign-up page
     + Link to the Post-Experience Survey

Every other week, the Email Correspondence Coordinator should

1. Email the Lead Scheduler(s) to check in regarding the master calendar and its status

Every day, the Email Correspondence Coordinator should

1. Send all participants participating in experiences that day a Post-Experience Thank You Email (Supplemental Material), which includes a link to the Post-Experience Survey
2. Skills Sessions Coordinator

This role is responsible for planning and executing Skills Sessions.

**\*\*This protocol is likely to differ at your institution. Please use our protocol as a template to create your own with the appropriate personnel at your institution**.

*Scheduling*

At the beginning of each semester, the Skills Sessions Coordinator should:

1. Request medical school course schedules:
   * Identify dates and times with the most student availability, keeping in mind testing schedule
2. Using the identified dates, determine Attending Surgeons availability by creating a group poll (e.g. “Doodle Poll”)
3. After an Attending Surgeon has been identified with a date and time, coordinate with the Surgical Skills Training Suite.

*Medical Student Sign-Ups*

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Two weeks before the scheduled skills session, the Skills Session Coordinator should:

1. Using the Participant Calendar, create an available Skills Session for Medical Student Participant sign-ups for the scheduled date and time with the following specifications:

* 8-10 student slots per session
* Include ONLY the following information to avoid selection bias:
  + Date
  + Time
  + A vague description of the equipment being used and/or skills being taught
* Sign-up deadline should be at least three days before the scheduled event

*Participant Confirmation Email*

Two days before the scheduled event, email, using the Surgical Skills Participant Confirmation template, each Medical Student Participant that is signed up the following information:

1. Date and time of session
2. Name and specialty of Surgeon leading the Skills Session
3. Brief description of the planned session
4. A brief statement regarding whether cadaveric dissection or specimens will be involved in the session

***Second Year Medical Student Research Team***

This team is responsible for managing the First Year Team and day-to-day operations.

***Third/Fourth Year Medical Student Research Team***

This team will focus on developing and improving the program with the Lead Attending at your institution as well the larger SSEP network.

***Lead Scheduler***

This role is responsible for

1. Maintaining the Master Calendar of all participating Surgeons’ weekly schedules which includes:
   * Communicating with surgical schedulers to maintain as up to date representation of Surgeons’ schedules as possible
   * Inputting Surgeons’ schedules at least 4 weeks in advance

***Surgical Skills Training Suite Manager***

This role is responsible for working with the Medical Student Research Team and Attending Surgeons to schedule, plan and execute Skills Sessions.

**WEEKLY WORKFLOW**

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|  |  |
| --- | --- |
| Sunday | * Email Correspondence Coordinator:   + Email Confirmation of Experiences to Participants in experiences during the coming week   + Create and distribute Weekly Shadowing Experience Sign-Up Reminder |
| Monday | * **\*Daily Task\*** Email Correspondence Coordinator:   + Send daily participant Post-Experience Thank You email |
| Tuesday | * **\*Daily Task\*** Email Correspondence Coordinator:   + Send daily participant Post-Experience Thank You email |
| Wednesday | * **\*Every Other Week Task\*** Email Correspondence Coordinator:   + Email Check in with Lead(s) Scheduler regarding master calendar * **\*Daily Task\*** Email Correspondence Coordinator:   + Send daily participant Post-Experience Thank You email |
| Thursday | * 12:00AM Close sign-ups for the coming week * Shadowing Assignment Coordinator:   + Using student’s indicated availability, assign each student to a shadowing experience (Excel Templates>Workflow>Longitudinal Participant Tracking)   + Send Confirmation Email to Surgical Schedulers and Attendings regarding the newly scheduled shadowing experience * **\*Daily Task\*** Email Correspondence Coordinator:   + Send daily participant Post-Experience Thank You email |
| Friday | * Calendar Coordinator:   + Add new shadowing events to the Participant Calendar * **\*Daily Task\*** Email Correspondence Coordinator:   + Send daily participant Post-Experience Thank You email |
| Saturday |  |

**RECRUITMENT**

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***Attending Recruitment***

The Lead Attending is responsible for recruiting other surgical attendings.

Surgical Attendings participating in the SSEP should represent a diverse range of surgical subspecialties, clinical and operative interests, and genders.

All participating Surgical Attendings are required to review and complete the Attending Expectations Form

***Medical Student Research Team Recruitment***

This team should be balanced by gender and represent a diverse group of students across all 4 classes within the medical school. Students should be recruited by utilizing your institutions weekly newsletter/email.

***Medical Student Participant Recruitment***

Completion of the Pre-SSEP survey is the only requirement for participation.

*Flyer and advertisement recruitment*

Additional IRB approved recruitment materials used by LCOM-UVM SSEP are provided within the “IRB Supporting Documentation”

*One-time lunch time* *orientation*

This session is open to the entire first year class and will be the main recruitment event.

Timing

* During the first two months of school
* All Surgical Attendings are encouraged to attend
  + At LCOM-UVM, each Surgical Attending discusses their interest and path of pursuit of their surgical subspecialties.

\*\*We recommend providing lunch for this session as a motivator for attendance.

**IT SUPPORT**

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***Online Portal***

Creating an online portal for your SSEP program will allow you to share documents, build and maintain the Participant and Master Calendars for posting shadowing opportunities, and manage scheduling in a secure environment while preserving data for future analysis.

The LCOM-UVM SSEP utilizes a Microsoft Office SharePoint Server, an online content management portal designed to host documentation of any type and manage user access in a controlled environment. This portal is already integrated with the Medical Students’ user database and is hosted behind a secure LCOM-UVM firewall.

***Program Specific Email***

Utilizing an SSEP specific email will allow for centralized communication to and from the program. All student members of the research team should have access to this email address.

* LCOM-UVM uses the address: *SSEPcontact@med.uvm.edu*

***Data Protection***

A password protected drive within the Medical Center and/or Medical School Intranet should be created for all confidential documents.

***Day-to-Day Operations Folder***

The Medical Student Research Team should utilize a shareable and access protected folder for daily files.

* LCOM-UVM uses a shared OneDrive Folder

***Survey Platform***

Identify the specific survey platform that your institution utilizes

* LCOM-UVM uses LimeSurvey

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***How To: Linking Survey Responses***

This can be achieved while maintaining confidentiality via either of the following two approaches:

1. At the beginning of each survey, ask students to create unique identifiers by asking specific personal questions that only that user will know.
   1. Q: What are the first two letters of your mother’s maiden name?
      1. A: [\_ \_]
   2. Q: What is the day of the month that you were born on?
      1. A: [\_ \_]
   3. Q: What are the last 4 digits of our cell phone number?
      1. A: [\_ \_ \_ \_]
2. Utilize anonymous tokens via survey platform

***Pre-SSEP Survey***

This survey measures “baseline” interest in surgical subspecialties when starting medical school. Completion of this survey is the only requirement for enrollment into the SSEP.

* Who is eligible to participate?
  + All first-year medical students
* When should it be distributed?
  + Within the first 2 months of medical school

***Post-Experience Survey***

This survey measures the impact of each experience on a medical student’s interest.

* To be completed after each experience

***Post-SSEP Survey***

This survey measures interest in surgical subspecialties after one year of participation in the SSEP.

* Should be distributed within the last 2 months of the first year of medical school

***Data Analysis***

Pre-SSEP and Post-SSEP Analyses

* Paired-sample t-tests

Post-Experience Survey Analyses

* One sample test of proportions

**ADDITIONAL SUPPORTING DOCUMENTS**

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***Email Templates***

1. Survey Emails
   * Pre-SSEP
     + Initial survey to participants
     + Survey reminder to participants
     + Confirmation of completion to participants
   * Post-Experience
     + Initial survey email to participants
     + Confirmation of completion to participants
   * Post-SSEP
     + Initial Survey to participants
     + Reminder to participants
     + Confirmation of completion to participants
2. Weekly Shadowing Experience Emails
   * Shadowing Experience Sign-Up Reminder
   * Confirmation of Experience to Participants
   * Confirmation Email to Surgical Schedulers and Attendings
   * Surgical Skills Participant Confirmation
3. Miscellaneous
   * Initial SSEP Project Email to Surgical Schedulers

***Excel Templates***

1. SSEP Research Team Workflow
2. Master Calendar

***Miscellaneous***

1. Attending Expectations Form