

Thomas Jefferson National Accelerator Facility (Jefferson Lab)

Science Undergraduate Laboratory Internship (SULI) Program

Research Experience for Undergraduates (REU) Program

Mexican Physical Society (MPS) Program

Undergraduate Physics Research (UPR)

***Tuesday, May 28, 2024, CEBAF Center Auditorium***

- 7:45 a.m. Refreshments, L102/207
- 8:00 Introductions – Lisa Surles-Law and Jalyn Dio
- Jefferson Lab Overview Video
- Introduction to participating undergraduate programs at Jefferson Lab
- Objectives
  - Mentors and Research Projects
  - Scientific Journals
  - Mandatory Safety and Computer Training
  - Dress Code
  - Driving Regulations
  - Emergency Contact Information/Insurance Cards
- 8:45 Greetings – Stuart Henderson, Lab Director
- 9:00 Residence Facility Orientation – Melissa Hicks, RF Manager
- 9:15 Fostering a Positive and Respectful Workplace – Lisa Surles-Law & Tish Creery
- 10:15 *Break*
- 10:30 Computer Orientation and Security –Matthew Sconyers
- 11:15 Lunch (*On Your Own*)
- 12:15 SAF099 Safety Training – Steve Gagnon
- 2:15 SAF099 Testing
- 2:45 Badge ID Photos, **Badging Office**
- Microsoft Teams Walk-Through and Deliverable Overview, Jalyn Dio
- Research Project Report – Oral and Written
  - Summer Calendar & Paperwork
- 5:00 Depart

***Wednesday, May 29, 2024, CEBAF Center Lobby***

- 10:00 a.m. Meet Your Mentors



## 2024 JLab Summer Undergraduate Program Syllabus

Students are required to attend all activities in **RED**

All times are in Eastern Daylight Time (EDT)

### Week 1: 28-31 May

T	28 May	08:00 AM	Program Orientation, CC Auditorium
W	29 May	10:00 AM	Meet with Mentors, CC Atrium
R	30 May	11:00 AM	Introduction to Nuclear Physics, CC F324/5, <a href="#">Mark Jones, Ph.D. (Research)</a>
		03:00 PM	Annual Jefferson Lab Run Around, Meet Outside CC (1 mile Run/Walk)
F	31 May	12:00 PM	Brown Bag Lunch: Getting to Know You Social, SSC Classroom
		03:30 PM	Using a Reference Manager: Zotero, Jalyn Dio, <a href="#">Zoom</a>

### Week 2: 03-07 June

T	04 June	11:00 AM	Introduction to Accelerators, CC F324/5, <a href="#">Alex Bogacz, Ph.D. (Research)</a>
W	05 June	10:30 AM	Mentor Project Show & Tell, SSC Classroom/Various Other Rooms
		12:00 PM	REU Lunch with Balša and Geoff, CC F107 (Req. for REU, Opt. CCI/MPS/SULI)
		01:00 PM	Department of Energy Office of Science Overview and History, <a href="#">Zoom</a>
R	06 June	11:00 AM	Introduction to Detectors in Nuclear Physics, CC F324/5, Dave Mack
F	07 June	03:00 PM	TWS #1: Project Articulation & Scientific Journals, SSC Classroom

Please consider attending/volunteering for the 2024 Jefferson Lab Open House on Saturday, June 8<sup>th</sup>!

### Week 3: 10-14 June

W	12 June	12:00 PM	Undergraduate Painting Lunch, SSC Classroom
		01:00 PM	Imposter Syndrome, <a href="#">Zoom</a> , Maureen Zappala
R	13 June	11:00 AM	Nuclear Physics Detectors Applied to Medical and Biological Research Applications, CCF324/5, <a href="#">Drew Weisenberger, Ph.D. (Research)</a>
F	14 June	03:00 PM	TWS #2: Rainbow Abstract (General/Long Abstract), <a href="#">Zoom</a>

### Week 4: 17-21 June

T	18 June	11:00 AM	CEBAF Overview, CC F113, <a href="#">Yves Roblin, Ph.D. (Research)</a>
		01:00 PM	Values-Based Professionalism, <a href="#">Zoom</a>
		03:00 PM	Roads to Success Panel, CC F113
W	19 June	Juneteenth - Holiday Observed	
R	20 June	11:00 AM	Nuclear Physics in Proton Radiotherapy, CC F324/5, <a href="#">Thia Keppel, Ph.D. (Research)</a>
F	21 June	05:00 PM	AYCE Hot Pot and Korean BBQ, Hot Pot 757 & Korean BBQ (~\$30/person)

### Week 5: 24-28 June

T	25 June	11:00 AM	Introduction to LQCD, Location TBA, Joe Karpie
		12:30 PM	Ice Skating, Chilled Ponds at Yorktown Ice Sports Complex (\$15/person)
W	26 June	01:00 PM	Mental Health, <a href="#">Zoom</a> , Daniel Allen
R	27 June	11:00 AM	SRF Science and Technology, Location TBA, Eric Lechner

### Events with Dates TBD:

- Lunch with Stuart, Director of Jefferson Lab
- Talk with Mike Epps, Department of Energy Project Manager

Refer to **Deliverable Due Dates** for deadlines and methods of file submission.

**Required Events (TWS = Technical Writing Seminar)**  
**JLab Seminars, Department of Energy Seminars,**  
**Holidays, "Mandatory Fun" Events**

### Building Abbreviations:

ARC – Applied Research Center, CC – CEBAF Center,  
 SSC – Support Services Center



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### Week 6: 01-05 July

M	01 July	11:30 AM	International Lunch Social with SciEd HS Interns, CC F113
T	02 July	11:00 AM	Scintillator and Photomultipliers, CC F113, <a href="#">Mark Dalton, Ph.D. (Research)</a>
		03:00 PM	TWS #3: Undergraduate/High School Student Project Share, SSC Classroom
W	03 July	12:00 PM	REU Lunch with Balša and Geoff, CC F107 (Req. for REU, Opt. CCI/MPS/SULI)
R	04 July		U.S.A. Independence Day - Holiday Observed
F	05 July	03:00 PM	TWS #4: HSSHP/Undergraduate Poster Overview with Jalyn, <a href="#">Zoom</a>

### Week 7: 08-12 July

T	09 July	11:00 AM	Data Acquisition, CC F113, David Abbott
W	10 July	10:00 AM	Women in Science Roundtable, SSC Classroom (RSVP Requested)
		01:00 PM	WDTs Program Alumni Panel, <a href="#">Zoom</a>
R	11 July	11:00 AM	Calorimetry, CC F324/5, Eugene Chudakov, Ph.D. ( <a href="#">Research</a> )
F	12 July	03:00 PM	Abstract Peer Review, <a href="#">Zoom</a>

### Week 8: 15-19 July

T	16 July	11:00 AM	Guesstimation: Approximate Answers to Any Question, CC F113, <a href="#">Larry Weinstein, Ph.D (Research)</a>
		01:00 PM	Summer Student Picnic, sponsored by JSA GSPDA, CC Cafeteria
		03:00 PM	Poster Peer Review #1, SSC Classroom
W	17 July	12:00 PM	REU Lunch with Balša and Geoff, CC F107 (Req. for REU, Opt. CCI/MPS/SULI)
		01:00 PM	Careers for Community College Students, <a href="#">Zoom</a>
R	18 July	11:00 AM	Extreme Vacuum, CC L102, <a href="#">Marcy Stutzman (Research)</a>
		01:00 PM	WDTs Virtual Graduate School Fair, <a href="#">Registration Required</a>
F	19 July	03:00 PM	Poster Peer Review #2, <a href="#">Zoom</a>

### Week 9: 22-26 July

T	23 July	11:00 AM	Ethics in Research, CC F113, <a href="#">Gail Dodge, Ph.D. (Research)</a>
R	25 July	11:00 AM	An Overview of the DOE National Labs, CC L102, Douglas Higinbotham, Ph.D. ( <a href="#">Research</a> )
		01:00 PM	Lab Directors Panel, <a href="#">Zoom</a>
F	26 July	ALL DAY	REU Final Presentations and Old Dominion University Tour (Req. for REU, Opt. CCI/MPS/SULI)

### Week 10: 29 July - 02 August

T	30 July	11:00 AM	CEBAF Polarized Electron Source, CC F113, Riad Suleiman, Ph.D. ( <a href="#">Research</a> )
W	31 July	12:00 PM	REU Lunch with Balša and Geoff, CC F107 (Req. for REU, Opt. CCI/MPS/SULI)
F	02 Aug	11:45 AM	Summer Intern Poster Session, CC Atrium
		02:30 PM	Student Intern Exit Interviews with Lisa, SSC Classroom

<b>Required Events (TWS = Technical Writing Seminar)</b> <b>JLab Seminars, Department of Energy Seminars,</b> <b>Holidays, "Mandatory Fun" Events</b>	<b>Building Abbreviations:</b> ARC – Applied Research Center, CC – CEBAF Center, SSC – Support Services Center
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**Jefferson Lab Undergraduate Internship Programs**  
**Summer 2024 SULI**  
**Deliverable Due Date Guide - DRAFT**

<i>Week</i>	<i>Due</i>	<i>Task</i>	<i>Link</i>
2	07 JUN 4:30 PM	<b>TWS 1: Project Articulation Form</b>	<b>TWS 1 Form</b>
2	07 JUN 5:00 PM	<b>WDTS SULI Pre-Survey</b>	<b>SULI WDTS</b>
6	01 JUL 5:00 PM	<b>HS/Undergrad Project Share Optional Slide</b> <i>One slide max, supporting graphic for 1-2 min project elevator-pitch</i>	<a href="#">SciEd D. Form</a>
7	10 JUL 12:00 PM	<b>Draft of Long (Rainbow) Abstract</b> <i>Refer to Abstract Reference Documents for appropriate color coding AND properly formatted header. Results not expected, but inferences based on potential results are requested. Ex: If this happens... then we can conclude...</i>	<a href="#">SciEd D. Form</a>
8	15 JUL 12:00 PM	<b>Rainbow Abstract Peer Review One Drive Comments</b> <i>Comment on documents for each student in OneDrive group</i>	<b>OneDrive</b>
8	15 JUL 12:00 PM	<b>Rainbow Abstract Peer Review Feedback Form</b> <i>Submit Peer Review Feedback Form for each student in OneDrive group</i>	<b>Feedback Form (A)</b>
8	19 JUL 12:00 PM	<b>Poster Draft for Poster Peer Review 2</b> <i>Submit Poster Draft that you plan on presenting during Poster Peer Review 2 (should include edits made after Poster Peer Review 1)</i>	<a href="#">SciEd D. Form</a>
9	22 JUL 12:00 PM	<b>Poster Peer Review Feedback</b> <i>Submit Form for each student in Peer Review 2 Group</i>	<b>Feedback Form (P)</b>
10	30 JUL 12:00 PM	<b>Final Poster (HARD DEADLINE)</b> <i>Submit by this time to ensure completion before poster session. YOU are responsible for picking up from TED Room 55-2525 after completion.</i>	<a href="#">SciEd D. Form</a>
10	01 AUG 11:59 PM	<b>Research Report Paper - (Cover Sheet w/ Mentor Signature)</b> <i>1500 to 3000-word research report paper in American Institutes of Physics publication form. Word count not inclusive of footnotes, appendices, or bibliography. Appendices must be three pages or less.</i>	<a href="#">SciEd D. Form</a>
10	02 AUG 11:30 AM	<b>General Audience (Long) Abstract</b> <i>Final "Rainbow" abstract WITHOUT any color coding</i>	<a href="#">SciEd D. Form</a>
10	02 AUG 11:30 AM	<b>Short Abstract</b> <i>150-word abstract summarizing poster's content and final content used in presentation of poster</i>	<a href="#">SciEd D. Form</a>
10	02 AUG 11:30 AM	<b>WDTS Uploads</b> <i>Final Poster w/ Short Abstract, Research Report, General Audience Abstract, &amp; Poster Peer Review Document (see email from Jalyn)</i>	<b>SULI WDTS</b>
10	02 AUG 11:30 AM	<b>WDTS Post Survey</b>	<b>SULI WDTS</b>
10	02 AUG 11:30 AM	<b>SciEd Exit Survey</b>	<b>Feedback Form (E)</b>

**FYI... 12:00 PM = NOON**





### **Jefferson Lab's Summer Intern Dress Code**

We have learned that student dress sets the tone for the learning environment. To clarify policy and to avoid questions, more specific descriptions of appropriate work attire are listed below.

**The following dress practices are NOT allowed in Science Education Programs:**

1. Pants worn below intended waistline, pants worn inside out, gym-type shorts, boxer pants, biker pants, bathing suit-type shorts, any type of cut-off shorts, cut-up pants.
2. Shirts or T-shirts over hose or stretch pants. Dresses, skirts, shorts, or tops covering stretch pants that do not reach at least midway to the thigh (fingertip length).
3. Bare feet or flip-flops. Shoes must be worn, keeping in mind safety concerns.
4. Shirts and blouses with objectionable slogans or obscenities.
5. Tank tops, shirts with spaghetti straps or shirts with uncovered sleeves less than 1-inch wide.
6. Sweat or yoga pants.

**As a professional in the workplace,**

- Hats are to be removed upon entering the buildings.
- Sunglasses are to be removed upon entering the buildings.

**When working with machinery, follow all machine-specific instructions and be aware of:**

- body piercing that will create safety hazard.
- loose clothing and loose lanyards.
- long hair. Tie back for safety.

Final decisions on the above dress practices are at the discretion of the Education Manager.





## Jefferson Lab's Undergraduate Summer Intern Program Agreement of Expectations

In order to fully participate in the 2024 Undergraduate Summer Intern Programs of the Science Education Department at Thomas Jefferson National Accelerator Facility, the following expectations must be met:

- Complete the program beginning **Tuesday, May 28, 2024**, and concluding **Friday, August 2, 2024**.
- Work the daily schedule that is outlined during orientation. If, for some reason, you are unable to participate on a particular day, advanced notice to the Science Education Coordinator and Mentor is required via email.
- Be accessible to mentors during the agreed upon work schedule.
- Be accessible to collaborate with team members during agreed-upon hours.
- Complete all safety training mandated by Jefferson Lab staff.
- Participate in the Abstract Peer Review Session to be held on **July 12, 2024**.
- Participate in Poster Peer Review Sessions on **July 16, 2024**, and **July 19, 2024**.
- Submit the signed research paper to Mentor and to the Science Education program coordinator by **Thursday, August 1, 2024**.
- Participate in the Poster Presentation Sessions to be held on **Friday, August 2, 2024**.
- Adhere to the dress code and videoconference etiquette described during orientation for videoconference attendance. Refer to the *Jefferson Lab's Summer Intern Dress Code* document.
- Attend all mandatory Technical Writing Seminars for papers and posters. [Dates: **07, 14, 29 June AND 05 July**]. If extenuating circumstances arise, contact Lisa Surles-Law or Jalyn Dio before your absence.
- Attend all required events and guest speaking engagements, rf. to the *2024 Undergraduate Syllabus* document. If extenuating circumstances arise, contact Lisa Surles-Law or Jalyn Dio before your absence.
- If residing at or visiting the Residence Facility, adhere to all Residence Facility policies and procedures.
- Adhere to the Fostering a Positive and Respectful Workplace Guidelines.

I have read the "Jefferson Lab's Undergraduate Summer Intern Program Agreement of Expectations" (revised 05/10/2024) and understand my responsibilities and involvement in the Program. Failure to comply with all of the above expectations will result in the loss of my position in the Jefferson Lab Summer Undergraduate Internship Programs. I also understand that I am responsible for the payment of any taxes due from my stipend checks to the IRS.

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Student Name  
(Printed)

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Signature

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Date

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Mentor Name  
(Printed)

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Signature

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Date



## Timeline

### Week 1

- *This may be your student's first job...*
- Provide project-related background materials
- Review expectations on working time/availability
- Work Sensitivity

### Week 2

- Provide guidance while establishing structure and routines
- Establish a regular pattern of communication, adjusting if necessary
- **Community Building/Engagement**

### Week 3-8

- Set SMART Goals per week
  - Specific, Measurable, Attainable, Realistic, Timely
- Encourage your intern to use all tools provided
- Provide Feedback! It is **essential** for growth.

### Week 9-10

- Ensure that deliverables are reviewed in some way prior to submission.
- Annual Public Poster Session
  - Friday, August 2nd
  - CEBAF Atrium
  - 11:45 AM - 1:15 PM

### Exit

- Provide contact information to remain in touch with student after departure, if desired
- Ensure that you both complete the respective Mentor and Intern Exit Surveys to provide feedback for next year's programs



## Jefferson Lab

## Stay in the Loop.

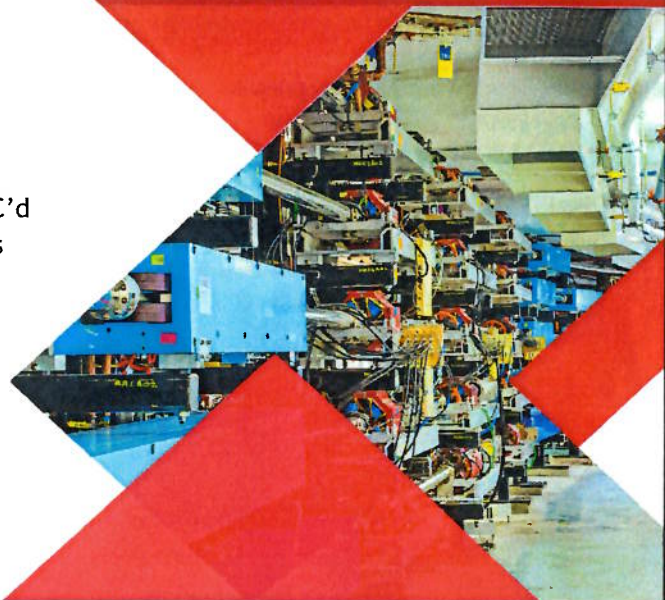
### Weekly Infographics

- Sent to all interns by Friday of week prior, Mentors CC'd
- All events, locations, speakers, links, and deliverables

### Outlook Calendar

### Email or Microsoft Teams

- Lisa Surles-Law, SciEd Manager ([surles@jlab.org](mailto:surles@jlab.org))
- Jalyn Dio, SciEd Admin Support ([jdio@jlab.org](mailto:jdio@jlab.org))
- Rhonda Bell, SciEd Administrator ([rbell@jlab.org](mailto:rbell@jlab.org))



## Mentor Responsibilities

### Safety

- Working safely is ALWAYS our number one priority.
- Ensure that your student has all the proper training for planned work and to conduct proper risk assessment

### MGT202

- Intergenerational Mentoring Web-Based Training
- Required for all primary **AND** alternate mentors

### Needs Form

- This form identifies contact info, alternate contacts, and ways SciEd can facilitate your support.
- Ex: Training for Rad Worker 1

### Availability

- Suggest weekly standing meetings
- Include students in your group meetings
- If you are not available, always ensure the student(s) know who else they can contact

### Communication

- Establish two-way communication, checking in daily to ensure they are not lost (mentally.. and maybe physically haha!)
- Early on, determine the best way to contact you in-person AND online.



### Computer Account Activation

All students were requested computer accounts with Office 365 licenses (Microsoft Teams-enabled)

Scheduled windows on Wednesday, May 29th for each student to go to the Help Desk and get their temporary password.

*This schedule will be shared with all mentors soon, for planning purposes.*

### Rad Worker 1

1. Mentors identify in the Mentor Needs Assessment which students **need** RW1 to execute their projects
2. Specified students take the proctored RW1 test in the SSC Training Room during Week 1
3. Passing students take practical with RadCon at time agreed upon between SciEd/RadCon

\*\*Waiting on completed Mentor Needs Assessments to determine RadCon needs. cannot proceed until final number achieved\*\*

## Provided Undergraduate Orientation Materials

### Undergraduate Roster

*Lists all students in undergraduate internship programs, academic backgrounds, and mentor assignments.*

### Summer 2024 Syllabus

*Contains a schedule of events (required and optional) for the entire ten-week period.*

*Sensitive to change throughout summer*

### Deliverable Due Date Guide

*Contains all expected student deliverables throughout the term, including a brief description, due date, and submission process.*

### SciEd Summer Intern Dress Code

*Specifies acceptable, appropriate dress for all summer interns (high school and undergraduate)  
Enforced by mentors and SciEd*

### Community Standards

*Lab-wide policy of appropriate conduct for all employees, users, students, guests, visitors, and subcontractors*

### Agreement of Expectations

*Science Education Expectations specifying the terms of the internship and intern requirements to remain in good standing.*

## Mentor Project Show and Tell

Wednesday, June 5, 2024 at 10:30 AM in SSC

Meeting first in SSC Classroom to discuss format and room assignments

- Groups of ~ 10 students grouped by mentor/department
- Mentors take turns sharing about their students' projects
  - About 2-3 mins, 0-2 slides per presentation (please bring slides on flash drive)
- Various rooms reserved in SSC with PowerPoint capabilities in each

## Summer 2024 SciEd Programming

### SULI

- Science Undergraduate Laboratory Internship
- Funded by WDTS, Department of Energy
- 24 Students

### REU

- Research Experience for Undergraduates
- Funded by ODU/NSF
- 10 Students

### CCI

- Community College Internship
- Funded by WDTS, Department of Energy
- 2 Students

### MPS

- Mexican Physical Society
- Funded by the JSA Initiatives Fund
- 2 Students

### VFP

- Visiting Faculty Program
- Funded by WDTS, Department of Energy
- 1 Faculty



### HSSH

- High School Summer Honors Program
- Funded by JSA Initiatives Fund
- 6-week, paid internship
- 10 Students

### SRGS

- Summer Residential Governor's School in Engineering
- Funded by the VA Department of Education
- 4-week, unpaid mentorship
- 10 students

### Mentorship

- Term Length determined on case-by-case basis
- High School-credit earning mentorship experience, unpaid
- 1 Student

