

 <b>Fermilab</b>		<b>Human-Resources Procedures</b>
<b>Procedure Number/Name</b> Design & Operation of the International Student Program		<b>Original Date:</b> 10/10/2016
<b>Written by:</b> T.I. Meyer	<b>Reviewed and Updated By:</b> H. Ramamoorthi	<b>Date:</b> 11/06/2017

### Revision History

Author	Description of Change	Revision Date
T.I. Meyer	First draft	10/10/2016
H. Ramamoorthi	Added framework, feedback from Chiefs	06/30/2017
T.I. Meyer	Amended to reflect ISPC role	11/06/2017

### PURPOSE OF THIS PROCEDURE

To articulate a consistent, robust approach to expanding global participation in Fermilab programs through students from other countries around the world.

The objectives of this program are two-fold:

1. To advance relationships with key international partners and more closely involve them in U.S. programs; and
2. To inspire, train, and develop a diverse and talented STEM pipeline of future, global workforce for Fermilab, the U.S., and the world.

### MATERIALS/PRE-REQUISITES NEEDED

- Approvals from DOE Office of High-Energy Physics for country-specific student programs via i-CRADAs or other international agreements
- Clear funding allocations or pathways to support Fermilab commitments
- Communication with Fermilab human-resources & on-boarding programs
- Current Fermilab Field-Work Proposal to DOE Office of High-Energy Physics concerning International Student Programs and associated Work Authorization(s)

### REFERENCES

- Fermilab Policy on Value of International Engagement
- Fermilab Policy on Rules of International Engagement
- DOE Order 142.3A – Unclassified Foreign Visits and Assignments Program
- Policy on Access to Fermilab
- Statement of Community Standards

- Attachment A – List of Present Participating Institution, Program Leads, and Points of Contact

## **STRUCTURE & PRINCIPLES OF THE PROGRAM**

Fermilab engages and hosts students as part of its overall mission. This procedure refers to post-undergraduate or other advanced-degree students who visit Fermilab for a short period (less than a year and typically three months) as part of their training and development. It does not address students who spend one or more years at the lab as part of their Ph.D. It also does not cover short-term, temporary workers who may be employed from time to time.

The International Student Program consists of a portfolio of Program Units. A Program Unit is unique and consists of the following elements:

1. A foreign entity or foreign, academic / degree-granting institution;
2. A bilateral, approved, signed agreement;
3. A Fermilab Lead;
4. A Partner Lead with the foreign entity; and
5. A cohort of students.

### **The present list of Program Units is shown in Attachment A.**

The Program Units are coordinated by the International Student Program Coordinator with common support for logistics. A majority of the support for international students is through direct funding from a Field-Work Proposal to DOE Office of High Energy Physics. The Field-Work Proposal is managed by a designated individual (presently Debbie Harris) in cooperation with the COO.

Fermilab will be a warm and welcoming host to all participants and will hold them accountable to a Statement of Community Standards for responsible and respectful behavior.

To the extent possible, the experience of and support for International Students at Fermilab shall be common and consistent.

International Students participating in the program will be part of a broader group of other U.S. students and interns at Fermilab. The International Student Program will provide opportunities for interaction among the group, both in the laboratory and in more informal settings. To the extent possible, the International Student Program sessions should be selected to optimally overlap with the U.S. student programs to support a truly collaborative and integrated environment without overwhelming Fermilab on-boarding activities and without unduly disrupting the educational cycles at the foreign institution.

Each international student must engage with Fermilab through standard channels including the Global Services Office for visas, international HR considerations, and the procedures associated with foreign nationals coming to Fermilab under the “Policy on Access to Fermilab;” these

procedures will address considerations as export control and DOE's Order on Unclassified Foreign Visits and Assignments.

Some international students will be considered Fermilab employees because of a salary/stipend from Fermilab through their program; others will be considered more like visiting scientists who only receive partial reimbursement for living expenses.

## DEFINITIONS

**Bilateral Agreement** – The bilateral agreements may be government-to-government agreements, they may be i-CRADAs between Fermilab and another foreign agency, or they may be i-CRADAs between Fermilab and a foreign educational institution. In each case, there shall be an underpinning agreement that is written and approved by DOE (program office, site office, and other entrained units) and the Laboratory Director. The copy of record shall be on file with the Office of Partnerships and Technology Transfer.

**Cohort of Students** – Although Fermilab will not control the selection criteria for participation in the International Student Programs, it is expected that Students will have an ability and willingness to work on elements of the U.S. high-energy physics mission; share an interest in science, technology, engineering, and mathematics or a related supporting field; demonstrate academic and intellectual success; and be committed to an English-based training experience at Fermilab.

**Fermilab Lead** – Fermilab will designate a Lead for each Program Unit. In some cases, several Program Units may share the same Fermilab Lead especially if they are foreign institutions within the same country. The Fermilab Lead will interface directly with the foreign institution to (a) discuss the number of slots available for that cycle, and (b) obtain the necessary details to submit student identities and demographic data to Fermilab's Workforce Development & Resources Section (WDRS). The Fermilab Lead will be initially designated at the time the agreement is signed and shall rotate about every three years. The records of Fermilab Lead for each Program Unit will be maintained by the Director's Office with copies in WDRS and OPTT. The collection of Fermilab Leads will work together, meet three times per year, and coordinate their actions.

**Foreign Partner, Entity, and/or Foreign Institution** – The International Student Program is designed to engage foreign students pursuing degrees majoring in Physics, computing or Engineering outside the U.S. The foreign partner may consist of a government entity (e.g., FAPESP), an arms-length agency (e.g., STFC), or a university (e.g., York University), and so on. The foreign partner must play a role in the training and development of students, typically through supporting research or providing education and awarding degrees. The foreign entity is responsible for selecting its students with diverse backgrounds for participating; parameters and opportunities should be discussed with the Fermilab Lead.

**International Student Program Coordinator (ISPC)** – The ISPC is based in WDRS in the Talent Acquisition Department and serves as the primary contact and responsible party for the

international-student programs that involve short-term stays. The ISPC works with the designated logistics-support person and coordinates the steady, reliable communication between each Program Unit and the other parts of Fermilab including Global Services and visas, student logistics, Director's Office, and Division/Section Heads and their deputies.

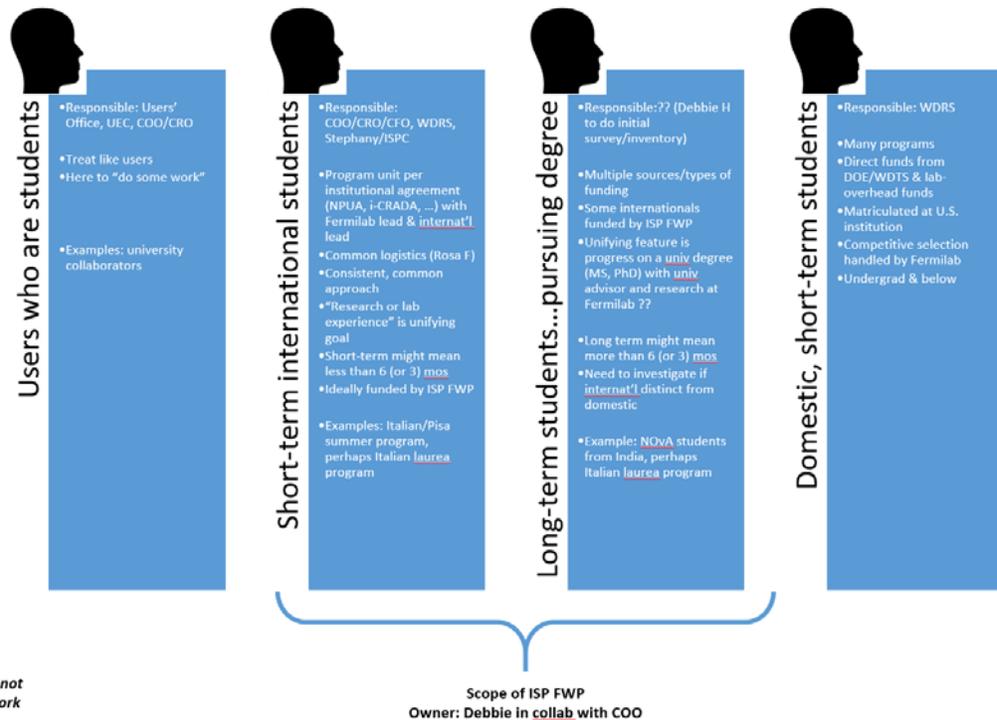
**Partner or International Lead** – The foreign partner will designate the Partner Lead who will coordinate the recruitment, selection, and support for the International Students. The Partner Lead will communicate the identities and appropriate demographics to support not only timely visas and invitation letters but also placement within Fermilab. The Partner Lead will be initially designated at the time the agreement is signed and may rotate about every three years. The records of Partner Lead for each Program Unit will be maintained by the Director's Office with copies in WDRS and OPTT.

**Student(s)** – Students are typically enrolled in a degree program at an accredited, educational institution and their time at Fermilab is designed to advance their training. The financial arrangements with students, their home institution, and Fermilab may vary and the duration and nature of their stay varies. Typically, students fall into one of four categories:

- *Users*: These students are simply visiting Fermilab for a short period to conduct their own research program using Fermilab facilities or expertise and they are on-boarded through Global Services and treated as Users.
- *Short-term, domestic*: These students are selected by Fermilab through formal, collective, competitive processes and are enrolled in a domestic educational institution as an undergraduate, masters, or graduate student. They typically come to Fermilab for a research experience that supplements their classroom education and introduces them to the professional environment and career opportunities. They are often on-boarded as employees and receive a salary and often reimbursement of some living expenses.
- *Short-term, international*: These students are enrolled in advanced-degree programs outside of the United States and are typically governed by one of many bilateral, institution-to-Fermilab written agreements. The foreign institution handles the selection of the students and they are typically on-boarded at Fermilab as student users (i.e., often a J-1 visa) and usually receive some reimbursement for living expenses. The duration of their stay is typically 3-6 months.
- *Long-term, "degree progress"*: These students are akin to a visiting researcher and may have living expenses partially or wholly reimbursed by Fermilab. Typically, these students are pursuing a Masters or PhD degree and there is typically a pre-existing relationship between the student's advisor and Fermilab. These students can be from international or domestic institutions.

Note that "international student" refers to the location of the student's home educational institution, not their nationality.

## Student Programs incl International Student Programs (ISP)



## GOVERNANCE & MANAGEMENT

The International Student Program is governed by the triad of the Chief Operating Officer (COO), Chief Research Officer (CRO), and Chief Financial Officer (CFO). The COO is accountable for operation of the program and compliance with requirements. The CRO is accountable not only for the alignment of Program Units with Fermilab goals but also the integrity of the research and training experience offered. The CFO is accountable for financial planning and execution including budget discussions with DOE program office(s). Final authority rests with the COO unless overruled by the Laboratory Director.

The day-to-day oversight of the program is provided by the International Student Program Coordinator, a role in the WDRS Office of Talent Acquisition (employment, recruiting, and hiring). Logistical support for each Program Unit is provided by a designee in WDRS/TADI; they will not be involved in selection and placement of the students.

In addition to the informal council of Fermilab Leads, the Deputies to each Division and Section are accountable for successful placement of International Students with local supervisors as well as the overall science, technology, and engineering experience.

## DETAILED PROCEDURE

1. For each foreign partner, a DOE-recognized international agreement provides auspices for an international student program where Fermilab can supply financial resources to cover student expenses while at Fermilab for a 3-6 month temporary period.
2. Based on U.S. budget authorizations, Fermilab CFO works with the CRO to identify target allocations of student slots for each Program Unit. These targets are communicated to the Fermilab Lead for discussion with the Partner Lead in each Program Unit.
3. The Partner Lead for each Program Unit provides a short list of top-flight candidates to the relevant Fermilab Lead.
4. Fermilab Lead finds placements for students within and across Fermilab program for the term duration.
  - a. Fermilab Leads should work with each and Division and Section Deputies to coordinate their actions.
  - b. If students are placed on a project, the project must arrange for time & compensation unless it can be argued the student is playing an “un-costed scientist” role.
  - c. Students may participate without impunity in any general Fermilab young-investigator programs, lectures, or other activities.
5. The Fermilab Lead is also expected to provide support in terms of cultural liaison and networking to make each student feel welcomed and at ease.
6. WDRS websites will report on the international-student participants in such a way so as to support them globally and to let DOE know of their accomplishments. This reporting requirement is driven both by the FWP that supplies some funding for subsistence at Fermilab and the need to report back to the home institution.

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Reviewed & Approved

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Date

ATTACHMENT A: LIST OF PRESENT PARTICIPATING FOREIGN INSTITUTIONS AND THEIR FERMILAB AND PARTNER LEADS

Institution	Fermilab Lead	Partner Lead
<b>AUSTRALIA</b>		
CoEPP		Geoff Taylor
<b>BRAZIL</b>		
FAPESP	Carlos Escobar?	Brito Cruz
Unicamp		Ernesto Kemp
<b>CANADA</b>		
<b>FRANCE</b>		
IN2P3		
<b>GERMANY</b>		
JGU / Mainz		Mathias Neubert?
<b>INDIA</b>		
DAE/DST	Steve Brice?	
<b>ITALY</b>		
INFN	Emanuela Barzi	Simone Donati
<b>JAPAN</b>		
<b>MEXICO</b>		
UNAM	?	C
Colima		Alessandro?
<b>UK</b>		
STFC		Tony Medland