

Handbook and Operations Manual



Institute for Intelligent Systems

THE UNIVERSITY OF MEMPHIS

IIS Handbook and Operations Manual

Table of Contents

IIS Handbook and Operations Manual	1
Preface by Andrew Olney	2
Getting Started	3
About the IIS	3
Challenge of Interdisciplinary Research	4
A Short History of the IIS	6
IIS Membership	7
IIS Student Organization (IISSO)	7
Events	8
Communications	9
Outreach	10
Resources	11
Degree Programs	13
Service	15
Staff	15
Summary	18
Students	19
IISSO	19
Expectations	22
Setting goals	25
Graduate Assistantships	27
Speaking and Writing	27
Summary	28
Faculty	29
Establishing yourself	29
Faculty resources	30
Grant Responsibilities	32
Grant life cycle	33
Summary	41
Staff	42
Regular Duties	42
Cyclical procedures	42
Event-Triggered Procedures	46
Summary	51

IIS Handbook and Operations Manual

Preface by Andrew Olney

Welcome to the first version of the IIS Handbook and Operations Manual. The IIS has never had a book like this before, but as the IIS has grown in scope and complexity, so has the need for a handbook that documents our programs and procedures.

This first version (17.05 in year/month notation) reflects my personal views that have developed over the last 10 years as I've served as Associate Director and eventually Director of the IIS. Accordingly, the priorities and biases are mine and have not been endorsed by the IIS community.

My hope is that future versions will be voted into adoption or follow some similar consensus-building process. By hosting this handbook on GitHub and using AsciiDoc, I've made it as easy as I know how for this book to be improved by a distributed group of people, potentially across many years, such that all revisions are well documented. This approach is well-traveled by other open source books, and I've leaned heavily on the model provided by **Pro Git** (2nd edition). To make changes, please refer to the procedures in the README file in the root of this repository.

Getting Started

This chapter provides a common ground for everyone that is assumed for the following chapters. It gives a high-level view of what the IIS is, what it does, and how it works. Some of these topics are further developed for student and faculty concerns in later chapters.

About the IIS

What is the Institute for Intelligent Systems?

The Institute for Intelligent Systems (IIS) is an interdisciplinary research center at the University of Memphis. Unlike many research centers, the IIS has historically pursued a research agenda set by participating researchers who **self-organize around research problems**, rather than a highly focused formal agenda. The breadth and flexibility of the IIS are reflected in our current mission statement:

The Institute for Intelligent Systems is dedicated to advancing the state of knowledge and capabilities of intelligent systems, including psychological, biological, and artificial systems.

By conducting cutting-edge research and publishing our findings in peer-reviewed venues, we contribute to the discipline and, ultimately, to the public. In doing so, we are also training the next generation of scientists.

Our mission depends on an interdisciplinary approach that brings together researchers from many different backgrounds, including computer science, cognitive psychology, education, philosophy, linguistics, engineering, English, and biology.

TIP

Our "bottom-up" approach to forming research groups makes the IIS very accessible: if you can find some like-minded people interested in your project, you can form a group.

Although the IIS maintains a strong tradition of bottom-up research, our recent strategic plan adopted three focus areas:

- Language & Discourse
- Learning
- Artificial Intelligence

These focus areas represent the deepest areas of *current* expertise at the IIS, but they should not be regarded as an intention to exclude other areas of research or limit what the IIS can become in the future.

Challenge of Interdisciplinary Research

Interdisciplinary research is hard. To be successful, we have to step outside our disciplinary perspectives and be willing to learn and to be challenged. This means not only learning about other disciplines, which have their own literature, methods, and approach to knowledge, but also learning to work on teams with members of other disciplines. These issues can impact student milestones and professional development, as well as tenure and career advancement for faculty. Within a university that has traditional departments, interdisciplinary research can challenge typical departmental procedures from both an academic (e.g., committee composition) and finance (e.g., course buyout) perspective.

Assume Ignorance

The best policy in interdisciplinary research is to assume a limited understanding of other fields. To paraphrase Bilbo, you don't know half of other fields half as well as you would like; and you like less than half of other fields half as well as they deserve. Misunderstandings often arise when researchers use themselves (or members of their field) as a model for researchers in other fields. The reason this doesn't work is that the differences between fields can be quite profound, well beyond the superficial issue of the area or object of study. The differences include:

Knowledge

What does it mean to "know" something and how can we arrive at "knowing?" Not all fields are empirical; not all fields use quantitative research methods.

Language

Each field has its own vocabulary and style of discourse that expresses "knowing." The same word or phrase may have different meanings across fields, e.g., "deep learning" means neural networks to computer science, but "deep learning" means durable, semantically interconnected memory to a psychologist.

Scholarly products

What scholarly products does a "successful" researcher produce, and how often? Some fields give great weight to books; some fields give great weight to conference proceedings.

Student training

How are students trained in the field? What kind of mentoring is expected, and what experiences are students expected to have? Some fields may expect hundreds or thousands of hours of clinical practice or bench work.

Communicate the Obvious

Perhaps the biggest problem facing interdisciplinary teams is that communication on these issues either doesn't happen, or happens late in the project. Therefore it is a good idea to communicate about what, at first, may seem obvious.

For each researcher

- What questions are interesting

- What they can contribute to the project in terms of answering these questions or the questions of others
- How many hours they can **really** contribute per week, including meetings, and any "dead" times during the year where they won't be contributing much
- What they need to do that year to be successful (e.g., to their department, includes teaching, etc.)
- What publications are planned
- What mentored students need along the above [1: Ideally, students working on interdisciplinary projects will be mentored by someone in their field. If this is not the case, students should keep in close communication with their advisor to ensure that their professional development is on track.]

Avoid the Technician Trap

Interdisciplinary researchers can contribute to a project in many ways. Many times, they contribute distinct technical skills related to their field. While this contribution can be important to the project as a whole, it may not make for a rewarding experience for the researcher. Application of technical skills may not count as scholarly output and thus not count towards career advancement. For example, a computer scientist may write software or a psychologist may run an experiment, but these activities in themselves do not constitute scholarly products. Moreover, these activities may be **extremely** time consuming and actually prevent the researcher from engaging in other activities.

When considering a project, researchers should be aware of the technician trap and consider two key questions

- Can I make this successful
- Can this make me successful

If there are conditions attached to these questions, i.e., to be successful, the researcher will need "X," then this is a worthy topic of discussion and negotiation on the front end of the project. For example, a psychologist may need to change the design of the experiment to make it publishable in their field, while still retaining the characteristics needed to advance the project. Some give and take is needed in any interdisciplinary project to ensure all researchers can benefit from the project.

Interdisciplinary Norms for Publishing

Different fields have different norms for publishing. This can affect who is on the paper, who is first author, and where the paper is published. It is important to clarify publishing expectations **at the start of the project** when there is no resource conflict (because the resource, i.e., the opportunity to publish, does not yet exist).

Things to ask:

- What are the criteria for authorship
- Who will take the lead writing up different results

- Who else will be listed as an author on these papers
- Are students expected/encouraged to publish work on this project
- Can a student be first author (assuming that concept is valid; some fields list authors alphabetically)

Remember, in some fields, non-intellectual contributions (e.g., collecting data) do not warrant authorship, and in others, the PI of a grant may be expected to be on all publications as last author - different fields have different standards.

For an extended discussion of this subject in psychology, see [these APA guidelines](#).

A Short History of the IIS

The IIS was formed in 1985 as a result of informal meetings between Dr. Stan Franklin (Computer Science), Dr. Art Graesser (Psychology), and Dr. Terry Horgan (Philosophy), with Graesser and Franklin initially serving as Co-Directors. Dr. Don Franceschetti (Physics) developed a five-year plan for the IIS which led to the recognition by the State of Tennessee of the IIS as an Institute. The Cognitive Science Seminar began in 1985 and continues to this day.

NOTE

The Cognitive Science Seminar has been in continuous operation since 1985. It is now a cross-listed course with Psychology, Philosophy, and Computer Science.

In 1998, as a result of multiple major grants to faculty participating in the IIS, the IIS received an operating budget of \$25,000, 5% indirect cost recovery from grants, and two staff positions that were both filled by 2000.

In 2003, the IIS moved to the FedEx Institute of Technology (FIT) and began hiring two faculty with split appointments between the IIS and other departments.

Beginning in 2007, the IIS began hiring 100% faculty lines. These lines are fully within the IIS but have tenure housed in other departments. This development marked a number of administrative changes in the IIS as it continued to grow into a mini-department. An additional staff person was added to support grant submissions (i.e., pre-award support) in recognition of the importance of grant funding to the IIS mission.

In 2010, the IIS was allocated 10 graduate assistantships, additional faculty lines, additional staff, 20% indirect cost recovery, and the 4th floor of the FIT. The IIS Student Organization (IISSEO) was formed and tasked with managing student travel awards. The IIS added its first degree program, the Cognitive Science Graduate Certificate.

In 2014, the IIS launched a multi-year strategic planning process. Many of the recommendations of the strategic planning process have already been implemented, including a new undergraduate Minor in Cognitive Science. However, parts of the strategic plan will take years to unfold.

For more detailed history of the IIS, up to 2015, please refer to the IIS Strategic Plan Self-Study.

IIS Membership

For many years the IIS did not have a formal membership definition. [2: Stan Franklin had a retrospective method that calculated membership based on participation over a period of time. However, this did not allow one to "sign up," which is a common attribute of memberships.]

Since 2008, the IIS has had a membership letter mechanism: faculty can join the IIS as "IIS Affiliates" by signing the letter and returning it to the IIS Director. The letter states what the Affiliate can expect from the IIS and vice versa. In a nutshell, the IIS expects participation and, ultimately, grant activity that funds IIS services. In return, the Affiliate has access to the various resources the IIS provides.

There is not a similar membership letter for students. Students may join the IIS Student Organization (IISSO) according to the current policies and procedures of that organization. However, being a member of the IISSO does not automatically grant access to IIS resources. To access IIS resources, students must be "claimed" by an IIS Affiliate faculty member as described later in this handbook.

IIS Student Organization (IISSO)

The IIS Student Organization (IISSO) is a self-organized group of students, most of whom work with IIS Affiliates. In addition to providing a community for students, the IISSO makes recommendations to the IIS regarding the allocation of various resources to students, including student travel awards and thesis/dissertation awards. The IISSO also organizes the poster session at the Speed Date, guest speaker lunches, and other social events.

Current information about the IISSO can be found at <https://sites.google.com/site/iissomemphis2/>

Students and faculty should refer to current information on the website. Additional information is in [Chapter 2](#).

A copy of the IISSO charter, **which may not be current**, follows.

Charter

Mission Statement

The IISSO is a student-led advocacy and coordinating group at the Institute for Intelligent Systems (IIS). The IISSO represents the interests of undergraduate and graduate students that are affiliated with the IIS. The IISSO actively pursues opportunities to improve student welfare through academic and social projects and also strives to advance student research by providing opportunities for funding, networking, and promotion of research. IISSO meetings are scheduled once or twice a semester, and all IIS-affiliated students are welcome to attend. The meeting minutes will be distributed through the IISSO email list within one week of the meeting. Student elections for the IISSO officers are held annually in May.

Its major responsibilities include

1. Distributing travel funds to students that attend academic conferences and workshops [3: See

eligibility requirements and submission guidelines on the Funding page.]

2. Organizing student lunches with visiting speakers
3. Providing opportunities for students to present their research and/or lead workshops/seminars
4. Providing opportunities to interact with professors interviewing for IIS-faculty positions
5. Keeping students informed of IISSO and IIS activities
6. Training the new IISSO officers-elect, and currently on pilot basis
7. Distributing thesis and dissertation funds to students toward the completion of their degrees [3: See eligibility requirements and submission guidelines on the Funding page.]

Qualification for Membership

Any undergraduate or graduate student affiliated with the IIS or with a strong interest in cognitive science interdisciplinary research is able to join and participate in IISSO events.

Membership does not have any strict requirements. To join, simply email the President to have your name added to the mailing list (MUST be your U of M email). The IISSO strives to advance student research by providing opportunities for funding, networking, and promotion of research. As such, members have access to the following benefits: participation in the IISSO research fair (usually toward the end of the Fall and Spring semesters), the opportunity to collaborate with researchers in different fields, as well as the chance to meet and network with experts from outside of the U of M in a variety of cognitive science fields (through the Cognitive Science Seminar lunches), attend and/or present workshops to further your academic career/CV.

While anyone is welcome to join and may benefit from any or all of the abovementioned benefits of membership, limited travel funding (and thesis/dissertation funding) can be awarded to members who meet certain criteria. Specifically, one must be an IISSO member collaborating on a project with an IIS-approved faculty member. Upon joining the IISSO, if you are interested in possibly applying for travel funding in the future, you should check with your advisor or any professor you are collaborating with to see if they are IIS-affiliated and if they have added their students to the list of IISSO-travel-funding-approved students. Even if you meet this requirement (and others detailed on the travel funding page), no one is guaranteed funding. For more information on travel funding, please see the IISSO Funding Page. There is also preliminary information on the Thesis/Dissertation funding on the Funding page. You may also contact any of the current officers with questions or concerns about membership and eligibility.

Events

Research Meetings

Individual projects and labs schedule weekly meetings in 405 and 407 FIT, the IIS main meeting rooms. Affiliates can book rooms with Renee Cogar. These meetings and descriptions are publicly posted to our website, and all IIS Affiliates and students are encouraged to drop in or participate in ongoing research meetings. There are approximately 25 regularly scheduled research meetings per week for externally funded projects.

Cognitive Science Seminar

The Cognitive Science Seminar is a hybrid course/public lecture. Students who register for the course (COMP/PHIL/PSYC 7514/8514) attend a course-only portion from 2:20pm to 4pm as well as a guest lecture portion, which is also open to the public, from 4pm to 5:20pm.

The topic of the seminar varies semester by semester, as do the faculty leading it. It is common for students to have lunch with guest speakers and for faculty to take them to dinner. More information about the seminar can be found in the faculty chapter.

Guest Speakers

IIS Affiliates will often host visitors who are willing to give a talk to the wider IIS community. Although the IIS does not provide material support for such ad-hoc speakers, we encourage Affiliates to make use of our meeting rooms and work with IIS staff to promote the talk.

Speed Date

At the end of each semester (typically 4pm to 7pm the Friday before Study Day), the IIS holds a Speed Date event in which 8-10 Affiliates give 5-minute presentations of their current research interests. The presentation portion is followed by a wine and cheese poster session, organized by the IISAO, where students present their latest research. Affiliates who wish to volunteer to speak at the Speed Date are always welcome to do so. Otherwise, Affiliates are invited based on how much time has passed since their last presentation, with priority given to Affiliates who recently joined.

Communications

Email

The IIS maintains multiple mailing lists:

- IIS-Faculty: faculty affiliates.
- IIS-Students: **interested** students, some of which might not be working with IIS affiliates.
- IIS-Pro: grant-supported staff and postdocs
- IIS-Admin: president, provost, vice president of research, FIT administration, deans and chairs of all faculty affiliates, staff in communications

Web

The IIS website has the following elements:

- List of affiliates and staff
- Degree programs
- Calendar of research meetings
- Links to resources
- List of affiliate projects

The IIS Student Organization (IISSEO) has their own website with specific information for students.

Social Media

Currently the IIS participates in:

- LinkedIn : there is a LinkedIn group for current and former students, staff, and faculty.
- Facebook

IIS social media accounts are managed by Leah Windsor.

Press Releases

In the past, faculty and students were largely on their own with respect to press releases, meaning that they had to write them, submit them to communications, and then wait and see if anything came of it.

The current process is that Mary Ann Dawson is on the IIS-Admin list and will proactively create press releases. If faculty or students have a particular story they think is worthy of a press release, they are encouraged to contact Mary Ann Dawson directly.

Branding

Use of IIS logo and branding is encouraged on presentation slides and conference posters. Discretion and care should be taken to avoid using the IIS brand in such a way that it endorses an activity besides an individual's research. Sponsorships and similar promotion/endorsements must be approved by the IIS Director.

Logo art is available on the IIS website under Resources.

Signage

The IIS has several signs used primarily for IIS events like the Speed Date. These signs can be used for other purposes but need approval (like branding) and can be checked out from Renee Cogar.

Brochures

General brochures about the IIS are available. While the IIS can provide these in limited quantities (e.g., 100), it should be recognized that these are produced at cost and should be used strategically (e.g., to attract students). General brochures can be obtained from Renee Cogar.

IIS can also assist faculty affiliates with the creation of brochures specific to their lab or grant project. Faculty wishing to create custom brochures should contact Adam Remsen.

Outreach

The IIS engages in outreach and encourages students and faculty to participate. These activities help promote the IIS brand, attract future students, and help us connect with new collaborators. Outreach activities can take place on-campus or off-campus.

On-campus, IIS faculty and students are frequently asked to participate in lab tours and associated demonstrations. Often touring groups are middle or high school students, so the tours/demonstrations need to be tailored to a general audience. These are excellent opportunities for graduate students to practice their presentation skills.

Off-campus events include demonstrations at schools or community events, speaking engagements, competition judging, and similar activities. Often times off-campus outreach is spearheaded by a particular faculty member, but to the extent possible, the IIS can support these activities by providing signs or similar materials.

Resources

Resources specific to students and faculty are addressed in their respective chapters. The resources that follow are available to everyone. Additional resources are listed on the [IIS website Resource page](#).

Meeting space

Faculty and students can book meeting rooms with Renee Cogar. In general, booking is on a first-come, first-served basis.

Teleconference room

Faculty and students can also book the IIS teleconference system with Renee Cogar. The system is located in 407 FIT.

The system is an [enterprise version of Google Hangouts](#) with the following features

- Accommodates a large group with one screen, camera, and microphone
- Allows a large group of attendees (~20)
- Can connect participants via telephone in addition to Google Hangouts
- For recurring meetings with fixed participants, can automatically start meetings and invite participants based on a calendar event (managed by Renee Cogar).

Library

The IIS Library is open to faculty and students at any time. The library holds a large collection of books donated by faculty (approximately 2,000).

Each book is indexed and cataloged, and may be searched in two ways

- [Book metadata such as author and title](#)
- [Full-text search using Google Books search restricted to our library](#)

Eyetracker room

The IIS has a "single instrument" experiment room, which currently contains a Tobii T60 Eyetracker.

This room may be booked for single instrument experiments through Renee Cogar.

Lab space

Lab space on the 4th floor of the FIT is assigned based on grant funding. The IIS has a strong history of collegiality with regard to space, with faculty between grants giving up space in full confidence that when they need it again, other faculty will be equally accommodating. Additionally, some space has been allocated to IIS faculty lines, who may not have space elsewhere.

Students or faculty without grant funding, who want temporary space, should contact the IIS Director. Temporary allocations may be warranted for pilot projects that lead to grant funding.

Subscriptions and Social media

Linguistic Data Consortium subscription (LDC)

The [Linguistic Data Consortium \(LDC\)](#) is perhaps the world's leading repository of linguistic data. LDC datasets are commonly used in shared tasks and to benchmark algorithms. They can cost thousands of dollars each.

The IIS has an institutional subscription, which gives us total access to each dataset released in a subscription year as well as a reduced price on non-covered datasets. Datasets in our subscription years are available on campus at <http://psychiisnas.memphis.edu/LDC/start.html>

Certain datasets require special license agreements. If a dataset appears to be missing, it may require a signature release. Contact Renee Cogar for such requests.

Dreamspark/Imagine Subscription

The IIS has a DreamSpark subscription. IIS Students, faculty, and staff may download Microsoft titles [from our webstore](#).

The primary types of software offered are

- Windows operating systems
- SQL server and similar server titles
- Visual Studio and similar development tools

Faculty and students can obtain Microsoft Office products directly from the University at <http://www.memphis.edu/getoffice>

GitHub

The IIS maintains a private GitHub account for faculty projects.

Google Apps for Education

The IIS maintains its own Google Apps for Education account, which provides all major Google services except email.

Equipment

Equipment check out

Various equipment is available for checkout, including

- Projectors
- Google glass

Equipment may be checked out through Renee Cogar.

Computers

Under current federal guidelines, general-purpose computers cannot be charged to grants. A general purpose computer is any computer not specially configured for a single task. For example, if a student checks their email or writes a paper on a computer, it is a general-purpose computer, but if a computer's primary purpose is to drive an eyetracker, that is an "unlike circumstance" computer that can be charged to a grant.

The IIS provides general-purpose computers to support grants. Typically these computers are replaced on a 3-year cycle. Older computers replaced on this program are available to all IIS Affiliates and will be announced as replacement occurs.

Printing

The IIS maintains multiple printers, chiefly in 410 FIT. Like general-purpose computers, these printers are considered part of general office supplies. Each computer is attached to the network and can be accessed from any computer. To do so, walk up to the printer, open its information menu, and write down the IP address of the printer. Use this IP address when adding the printer to your computer. Please keep the printer clean, filled with paper, and report problems to Renee Cogar as a courtesy to your colleagues.

Degree Programs

This IIS hosts two degree programs, the Cognitive Science graduate certificate (a graduate program) and the Cognitive Science Minor (an undergraduate program). Currently, both programs consist of courses hosted by other departments but often taught by IIS Affiliates. Information about both programs is available at <http://www.memphis.edu/cognitive-science/>

Importantly, [that link](#) lists the specific courses offered in the current/upcoming semester that apply to the certificate and minor, which should help students when registering for classes.

Cognitive Science Graduate Certificate

The certificate is available to all enrolled graduate students from any department. Additionally, students can be on the certificate as **non-degree-seeking** and by doing so be eligible for GA positions. Similarly, non-degree-seeking students on the certificate are eligible for financial aid. So a student between UG and a graduate program may find taking the certificate to be an effective use of their time while they are waiting to be admitted to a graduate program.

Ideally, students interested in the certificate will apply for admission right away, but it is also possible to enter the certificate right before graduating and have previous classes retroactively count toward the certificate (as long as no more than 6 hours are "double counted" towards the certificate and another degree).

Students already enrolled in a graduate program (or who have previously been degree-seeking) can apply to enter the certificate by filling out a change of status form:

<http://www.memphis.edu/gradschool/pdfs/forms/changeofstatus.pdf>

with degree program as "Graduate Certificate," Major: Cognitive Science.

and then filling out the form, printing/signing, and mailing to the Graduate School or walking over to the Graduate School.

If the student is currently enrolled as non-degree and has never been degree-seeking he or she must complete an online readmit application.

For non-degree students, the IIS graduate coordinator, Andrew Olney, is the advisor of record and must clear classes each semester. For degree-seeking students the regular advisor remains the advisor of record; however feel free to contact me for advice on course selection.

In addition to the listed courses that can count towards the certificate, the graduate coordinator may approve course substitutions. Faculty are encouraged to contact the graduate coordinator if they are teaching a "one-off" seminar course that is aligned with the certificate or a new course that is similarly aligned. Students are encouraged to contact the graduate coordinator for advice regarding courses, particularly courses outside their area.

In the semester of graduation, students on the certificate must fill out the following forms

- Apply to graduate
- Graduate certificate candidacy form
- Course substitution forms (as needed)

Forms are available at http://www.memphis.edu/gradschool/resources/forms_index.php

Andrew Olney will sign off on the forms and route them for further approval.

The deadlines are listed here:

http://www.memphis.edu/gradschool/current_students/graduation_information/graduation_deadlines.php

Note that deadlines for graduation paperwork are early in the semester

Please contact Andrew Olney if you have any questions.

Cognitive Science Minor

The minor is available to all undergraduate students **except** Psychology majors. Psychology majors should instead take the Cognitive Science concentration within the Psychology major.

Unlike the graduate certificate, the minor is largely administered by the College of Arts and Sciences (CAS). Students wishing to declare the minor should follow the CAS procedure at http://www.memphis.edu/cas/advising/declare_major.php

A student wishing a course substitution or exception should contact the IIS undergraduate coordinator, Andrew Olney, who will contact graduation analysts in CAS to make the change.

Service

The IIS has limited service relative to a standard department. Over time, IIS service roles are likely to grow.

Social Media Coordinator (Leah Windsor)

- Administer Facebook page
- Update Facebook page with IIS events and recognition

IIS Undergraduate Coordinator (Andrew Olney)

- Advise students
- Maintain the degree website
- Update available courses each semester
- Monitor program outcomes with respect to goals

IIS Graduate Coordinator (Andrew Olney)

- Advise students
- Admit students into program
- For non-degree students, clear to register for classes each semester
- Approve course substitutions
- Certify completion of requirements
- Monitor program outcomes with respect to goals

Staff

Most staff are available during academic hours and on an as-needed basis. The major exceptions are grant preparation and software development.

Grant preparation support is negotiated in advance and coordinated according to other grant submissions that are due at approximately the same time. This coordination encourages faculty to notify of intent to submit and work with our grant preparation staff well in advance of the submission deadline.

Software development likewise is time-intensive for any given project. Currently, software development support is allocated using an RFP system. Faculty write a 1-2 page narrative

describing how their project would benefit from software development support. Support is allocated in 2-month blocks per project on a 6-month cycle. During any 2-month block, our software development staff member is 100% committed to the assigned project.

Some IIS responsibilities are handled by [faculty as service](#).

Senior Administrative Secretary (Renee Cogar)

- Manage all meeting space (405/407)
- Manage all IIS email lists
- Manage library; order books and journals
- Handles travel bookings as requested
- Book events like the Speed Date
- Handles mail, faxing, and phone communications

Financial Services Associate (Jenice Jackson)

- Manage IIS Operating and IDCR accounts
- Purchasing
- GA contracts
- Reimbursement
- Travel authorization
- Inventory

Pre-Award Coordinator (Adam Remsen)

- Track and route funding opportunities to faculty
- Grant proposal preparation
- Budget, budget justification, advance account requests
- Edits documents and checks for sponsor compliance
- Maintains current and pending support database
- Edits faculty CVs
- Prepares proposal packages; coordinates submission with internal and external research offices
- Other grant-related activities as needed

Business Officer (Mattie Haynes)

- Manage all IIS grant accounts
- Monitor IIS Operating and IDCR accounts
- Manage program income
- Provide monthly reports on grant and IDCR accounts

- Re-budget as needed
- Manage summer salary, AY incentive, and check compliance
- HR functions; prepare contracts for research faculty
- Act as liaison with the office of research support services, accounts payable, financial planning,
- and grants accounting on behalf of the IIS (faculty, staff, students, etc.).

IT Support (James Beel)

James Beel provides IT support for Psychology and IIS. If you need his support, you must submit a ticket here:

<http://helpdesk.memphis.edu/>

On page 5 of the below PDF are instructions for submitting a ticket. There is also other useful information provided.

<http://www.memphis.edu/umtech/solutions/docs/mobiledevicesemail.pdf>

Senior Software Developer (Andrew Tackett)

- Develop and maintain grant-sponsored software
- Trains others in use and installation of software; prepares documentation
- Maintains versioning, code repositories, and releases of software
- Supervises and trains students in software development
- GitHub administrator
- LDC website administrator
- NAS administrator
- Projector sign administrator

Director (Alistair Windsor)

- Immigration and sabbatical invitation letters
- Annual evaluations for faculty
- Annual evaluations for staff
- Assign research space as needed
- Assign computing resources as needed
- Assign IIS GAs on annual basis
- Monitor and update website as needed
- Coordinate Cognitive Science Graduate Certificate (admissions, matriculation, etc.)
- Recruit and coordinate instructors for the CogSci seminar
- Recruit and coordinate speakers for the Speed Date

- Coordinate public demonstrations and outreach
- Serve as committee chair/member for faculty hires
- Recruit and retain IIS Affiliates, including counteroffers
- Work with IISSO to maintain student travel funding program
- Produce annual report and program reviews as needed
- DreamSpark, Google Apps for Education, and LinkedIn group administrator
- Representative for the IIS at administrative meetings and on committees
- Monitor the IIS and intervene as needed

Summary

You should have a basic understanding of what the IIS is, what it does, and how it works.

Students

This chapter is dedicated to students. It assumes you've already read the [Getting Started](#) chapter. If you have not read that, go back and read it now!

The IISSO has different support for students than it does for faculty. The major support structure is the IISSO. After discussing the IISSO, we will cover some additional topics with a view to the interdisciplinary issues that sometimes come up and your professional development. These sections are intended to supplement, rather than replace, the mentoring you receive from your major professor.

IISSO

IISSO currently makes funding recommendations for student conference travel and thesis/dissertation funding.

The policies guiding these recommendations is constantly in flux, so students are advised to check the following link for the current policies <https://sites.google.com/site/iissomemphis2/travel-info-1>

IMPORTANT

Students who don't follow the policies either receive no funding or greatly reduced funding.

Just as important, the IISSO organizes various social events that contribute to professional development, guest speaker lunches and the Speed Date poster session.

Guest speaker lunches are an extremely important way for students to get practice talking to unfamiliar colleagues about their research. This is a scenario that will occur again and again in professional life, particularly on job interviews, and guest speaker lunches provide a friendly, low-risk environment in which to practice.

The Speed Date poster session is similarly a great opportunity to practice speaking and presentation skills. Unlike an academic conference, where the audience may be specialists in a particular area, the Speed Date audience is highly diverse. This creates an opportunity to practice speaking with interested colleagues who are non-specialists, again in a friendly low-risk environment. Students are encouraged to use posters from recent or upcoming conference presentations rather than creating posters specifically for the Speed Date, though creating posters specifically for the Speed Date is not discouraged.

Officer Responsibilities

Students are also encouraged to take various service roles in the IISSO, detailed below.

President

- To act as the spokesperson for the IISSO
 - To be aware of the responsibilities of all IISSO members
- To delegate the responsibilities and charges of the IISSO officers and representatives as necessary

- To confirm responsibilities and charges of each member are fulfilled
- To stay informed of IISSO member activities
- To initiate and delegate the development and planning of annual IISSO activities
 - To assist in developing subcommittees in order for annual activities to be fulfilled
- To call meetings and forums deemed important to the IISSO and the IIS
- To attend IISSO Director meetings, IISSO meetings, and forums
- To determine what information from IISSO meeting minutes is sent to the larger IIS group
- To motivate IISSO members to fulfill their responsibilities
- To consult with the Vice-President before requesting new strategies or activities be implemented for the IISSO
- To gather consensus among IISSO members before implementing new strategies or activities for the IISSO or IIS group

Vice-President

- To assume the responsibilities of the IISSO President should there be an extended absence
- To act as the spokesperson for the IISSO in the absence of the President or as requested by the President
- To be aware of the responsibilities of all IISSO members
- To support and assist the IISSO President in fulfilling his/her responsibilities
- To attend IISSO Director meetings, IISSO meetings, and forums
- To act as a “sounding board” for the President in order to encourage well-rounded ideas before promoting them to the IISSO as a whole
- To gather consensus among IISSO members before implementing new strategies or activities for the IISSO or student body
- To motivate IISSO members to fulfill their responsibilities
- Serves as research coordinator until further notice.

Research Coordinator

- To act as Chair of the IISSO research conferences
 - The Research Coordinator is responsible for handling required tasks for the IISSO research fair each semester, including:
 - Establish submission guidelines and timeframe
 - Secure/reserve venue
 - Recruit faculty and graduate students to host workshops/seminars
 - Supervise registration
 - Recruit staff/volunteers
 - Create room layouts and assignments (table, chairs, podium, etc.)

- Secure supplies and A/V needs

Treasurer

- To meet with IIS Directors before the Fall semester to determine the budget for the upcoming year
- To communicate funding procedures and deadlines to IIS student AND faculty affiliates in the first week of the Fall, Spring, and Summer semesters
- To provide and maintain updated travel applications
 - The Treasurer will collect and review the applications for completeness and solicit applicants for additional information as needed
- To score the applications to determine how much funding will be offered
 - The scoring procedure should adhere to a policy determined by the Treasurer, IIS Directors, and IIS Administration at the beginning of each school year
- To notify the applicants of their awards
 - Award notices should be in the form of a written letter signed by the Treasurer that indicates the recipient and the amount of the award. Students who are away on internship are notified by email.
- To record and compile a text document at the end of the each round of funding of who received funding, for how much, and for what event the funding was applied
 - This text document needs to be submitted to the IIS Director and the IIS Finance Secretary (Mattie Haynes)
 - This text document, minus the award amount, needs to be submitted to the IISSO Secretary/Archivist for inclusion in the semester newsletter.

Secretary

- Secretarial Duties
 - To attend every meeting of the IISSO and record minutes
 - To keep the cumulative meeting minutes together in either hard or electronic copy (and available on the organization website) for members or interested individuals to access
 - To keep a record of any organization documents

Ambassador

- To organize and initiate outreach activities during the academic year including:
 - tours of the IIS labs for prospective students
 - informational workshops highlighting the research activities of the IIS
- To coordinate student lunches with visiting lecturers/faculty
- To organize and meet monthly with a committee comprised of student representatives from all IIS-affiliated departments
 - A status report from the committee will be presented at the monthly IISSO meetings

- To encourage students affiliated with the IIS to become active members of the IISSO
 - Requires assisting Secretary/Archivist, Research Coordinator, and Social Coordinator in coordinating activities with IIS-affiliated students/departments

Social Coordinator

- To plan all IISSO student lunches with visiting professors or speakers. This includes speakers for the Cognitive Science Seminar and prospective job candidates when applicable.
 - Coordinate with the Professor running the current semester's cognitive Science seminar in order to arrange the lunches.
 - Email IISSO members when lunch opportunities arise and compile a list of who attended and send the list to the treasurer for attendance records.
 - Submit all lunch receipts to Vickie Middleton.

Webmaster

- To maintain and update the IISSO website, including:
 - Oversee the development and distribution of the IISSO website, containing organization information and news.
 - Keep track of organization history (events, research, meeting dates, etc.) on the website
 - Gather consensus among IISSO members pertaining to website updates, additions, and general requested changes.
 - Keep the website information up to date (membership directory, current officers, upcoming event, etc.)

Recruitment Officer

- To attend IISSO director and general meetings
- To carry out annual IISSO activities as delegated by the President, Vice President, and/or subcommittees
- To seek out important happenings in affiliated departments and report this information at IISSO meetings
- To stay updated as to the events and activities within each department and report this information to the IISSO
- To volunteer for subcommittees in order to assist in carrying out IISSO events and activities
- To encourage students, both graduate and undergraduate, to become involved in the IISSO

Expectations

One of the trickiest things about doing interdisciplinary work is navigating the different ideas and workflows from other fields. Often other fields will do things "a certain way," and **expect** others to do things the same way.

As a student, it is particularly important to be aware of expectations, the fact that expectations from

faculty other than your major professor may be different, and that they matter.

Hiring examples

Non-computing faculty hires computing student

A non-computing faculty may have a funded project that requires some programming. That faculty member may have a strong idea of what needs to be done, and be able to communicate the design, or they may not. Similarly, that faculty member may have experience with software development and understand the time course of development, or they may not.

A computing student who is hired as a graduate assistant to such a faculty member needs to be very careful. Why? Because the expectations of the faculty member and of the student may be far apart. The faculty member may assume that it will take 3 months to develop the software. The student may have **no idea** how long it takes to develop but hopes the faculty member is understanding of any unforeseen challenges and the learning curve.

Computing faculty hires psychology student

A computing faculty may have a project that requires some kind of human experiment for validation. So the faculty may hire a psychology student to run the experiment. The faculty member may know something about running experiments, or they may not. Likewise, they may have experience designing experiments, or they may not. Again, a psychology student hired as a graduate assistant needs to be very careful because of expectation mismatch.

The faculty member may not understand that it can take 1-2 months to get a study approved by IRB and that the study has to be completely specified in the IRB submission (all materials, etc.). The faculty member may have unrealistic expectations about how long it will take to run the study, e.g., an eyetracker study with 100 subjects. And the psychology student may not really know how long some things will take.

Dealing with these examples

How can we make these situations better? Ideally, both sides need to learn a little about the other. However, that can't happen without communication.

TIP

When doing interdisciplinary work, communicate twice as much (both as often and in length) as you would with someone in your field.

Otherwise, two really bad things can happen

- The faculty member thinks things are done when they aren't
- The faculty member thinks you aren't working when you are

Thesis/dissertation expectations

Different fields have different standards for theses and dissertations. In some fields, these will be brand new work; in other fields, these will be existing publications sandwiched with an introduction and conclusion.

When you ask someone from another field to be on your committee, you are implicitly agreeing, either partially or in full, to meet the standards of their field. No professor will be on your committee and let you say/do things that run contrary to their field. So, think very carefully about your committee membership, **talk** in advance to potential committee members to make sure they are agreeable to your plan.

Additionally, different fields have different conventions about

- How defense meetings are conducted (formal/informal, when questions are taken)
- Format of the document (e.g., proposal in perfect format vs. draft)
- How far in advance the document is sent to the committee (e.g., 2 weeks or more)

Again, it is important to discuss these things with your committee and your major professor. You should also be very careful about if your department will allow outside members on your committee. Most departments require a committee chair in your department, some allow only one member from another field, and some **require** a member from another field.

Baseline expectations

In addition to the above, there are baseline expectations for all graduate students. These are things that all faculty members expect, regardless of discipline.

Communication

Emails returned in under a day

Deadlines

Should never be missed

Work

Documented such that if you were never seen again, **someone could pick up where you left off ten years from now** and understand what you did

Attendance

Posted the hours you will be at your desk ; Don't skip meetings; let people know **in advance** when you are sick

Initiative

Work independently; suggest ideas to problems; participate in meetings (that means speaking)

Website/CV

Up to date with your status and accomplishments

Writing

Grammatical; organized; proper lit review

Reading

Familiarity with literature in your area

Setting goals

In the end, your degree and your professional career are up to you. You need to figure out your goals and how to best achieve them. Your major professor can help, and resources from the IIS can help. But they will only help if you actually make use of them.

One way to approach goal setting is to work backwards.

What job are you preparing for?

It is important to recognize that you are preparing, now, for a future job. You want to be the **successful applicant** for that job, meaning you are selected over all other applicants. How will you achieve that in a competitive world?

TIP | Start preparing for your future job today

Jobs are specialized. You will want to prepare slightly differently for different kinds of jobs. Here are some examples:

University Tenure-Track

Publishing is key; teaching is mostly irrelevant

College Tenure-Track

Teaching experience is important; publishing less important than university

Industry Research

Publishing less important than university; technical skills important; internships useful

Industry

Technical skills important; internship experience becomes important

Most faculty will try to prepare you for a university tenure-track. That's the hardest path and doesn't necessarily shut you down from other paths. How hard is the university path? According to one study, about 20% of PhDs get tenure-track jobs. You have to work very hard.

Let's break it down.

Who has the job you want?

All academics have their CVs online. If you want to be a tenure-track professor at Stanford, go to that department website and look at the people they hired in the last five years. It's important to look at recent hires because hiring criteria change over time. Look at the appointment date on these CVs and then filter out the publications/accomplishments that were obtained the year before hire. Why the year before? Because academics go on the job market in the fall to land a job **the following August**. Using this process, your goal is defined: to get this person's job, you need to have a CV that was at least as impressive as theirs.

Break it down by year

You should now have an idea of what your yearly publication rate should be and what mix (conference/journal/etc). Perhaps it is two first author publications and two co-authored publications. How do you plan for this? It is important to talk to your major professor and come up with a plan. Saying "I will publish two first author papers this year" is not a plan (it's just a re-statement of the goal). Again, you can work backwards, but you probably will need guidance to do this well.

Break it down by paper

Conferences have deadlines. If you know what conference you want to publish in, you can use that date and work backwards. Journals don't have deadlines, but they take a long time. A year or more might pass between submission and seeing your paper in print. In either case, you need to plan. Assuming you already have an idea:

- Talk to your advisor to make sure it's a good idea
- Do a literature review so you really understand how your idea fits in existing research. If this is 30 previous papers, you might read one paper a day for a month.
- Do whatever work it takes to realize and evaluate your idea. Try to get your advisor to help you.
- Write your idea and results up. If you write a page a day, it will take 8-12 days for a conference paper, 15-30 days for a journal article.
- Send your draft paper to your coauthors for feedback. Expect 1-2 weeks for feedback and time to merge their comments.

As you can see, it will take several months to go from idea to submitted publication. There are a couple of strategies you can use to increase your output. First, always have something under review. Since conferences are seasonal, this implies you will be submitting to journals during other parts of the year. Second, have multiple projects going on at the same time. If you work with other people, this will naturally happen, because its unlikely different research projects will be in synchrony. If you do this, you will have different papers in different stages all the time. This style of work is common in industry. In TV, for example, a show will often have one episode in pre-production, one in production, and another in post-production at any given time.

Everything else

Usually, your future employer will not care about your academic transcript. Some might, and it is important to consider that. However, if you spend all your time making straight A's in your courses but don't publish well, you are not going to be a successful candidate for a tenure-track job.

On the flip side, there is something else that is important for a tenure-track that students don't often think about—letters of recommendation. Of course, your major professor can write you a letter, but you will also need other letters (typically two others). You should have a long-term plan for cultivating these letters so that they are as good as they can possibly be. The letter should come from someone who knows your work well, has seen you present, has published with you or worked closely with you on a project, and **most importantly** is enthusiastic about your work.

Graduate Assistantships

Students cannot request assistantships directly. Graduate assistantships (GAs) are supported by grants, your home department, and in some cases, the IIS.

Rules

See the [Graduate School website](#) for current rules, but generally

- GAs are "on contract" to work 20 hours a week
- GAs receive both stipend and tuition
- GAs must maintain a 3.0 grade point average

IMPORTANT

Read your GA contract carefully!

Departmental GAs and grant GAs have the following important difference

- Departmental GAs must take a full load (9 hours) until they start their thesis/dissertation
- Grant GAs can take less than a full load as long as they have student status

Continued employment

Before the end of each semester, you need to

- Ask the faculty member you report to if you will be funded next semester
- Talk to Jenice Jackson about your contract

Extra tuition expenses

Sometimes students want to take an online course or more than 9 hours. If this happens, you should get permission. Otherwise, you may be asked to cover those expenses. Why? For departmental GAs, the IIS receives exactly 9 hours of tuition reimbursement from the university. If you go over 9 hours, the IIS has to pay from its indirect cost budget, which is the same budget that funds student travel and other items. For grant GAs, this is usually less of a problem, but grants like the IIS have a budget item for tuition that is calculated at 9 hours. So if you go over, you can actually put the grant into deficit, which the PI of the grant becomes responsible for.

Some perspective

You can look at a GA as just your job, or you can look at it as an investment in your career. As a job, why would you work more than 20 hours if you weren't paid to? However, as an investment in your career, you may choose to work more than 20 hours to be competitive on the job market post-degree.

Speaking and Writing

Speaking and writing are fundamental skills for your professional career. This can be particularly

challenging for non-native speakers, but speaking and writing are often challenging for native speakers who are not used to the **genre** of academic presenting and writing. In other words, you may know how to write, but you don't know how to write right!

For students who need a lot of help with the mechanics of writing, the University offers several specialized resources:

- [The Center for Writing and Communication](#)
- [The Center for International Language Services](#)

IMPORTANT	All students need to practice academic speaking and writing
------------------	---

The cornerstone of expertise is **deliberate practice**. To become an expert academic speaker and writer, you need to carefully think about what you are doing, how you are doing it, what the alternative ways are, and then practice the best way. It helps a lot if you get feedback from others.

How do you get feedback and the opportunity to practice? Most programs have informal meetings where students present, and many labs encourage practice talks. Make use of these opportunities! It takes **years** of practice to get really good at academic speaking, so keep practicing and study others as they present. This is particularly important for job talks, which are slightly different than any other talk you will give.

Summary

At this point, you should know **most** everything you need to be a successful IIS student.

Faculty

This chapter is dedicated to faculty. It assumes you've already read the [Getting Started](#) chapter. If you have not read that, go back and read it now! You might also want to read the [Students](#) chapter so you know what your students are supposed to know.

The IIS is primarily geared toward supporting faculty research. We do that by providing resources and services. These resources and services are designed to help you do pilot work for grants, submit grants, lead grants, and wind down grants.

Why do we focus so much on grants? While research does not need to be backed by a grant to be worthwhile, the IIS is almost entirely funded by grant activity through indirect cost recovery and salary buyout from its faculty lines. Without ongoing grant activity, the IIS would have to eliminate many of the resources we currently provide. Eventually, a lack of grant activity would probably lead to our staff being reassigned to other units. In other words, grants are an existential concern for the IIS, and we give priority to activities that support faculty through the grant life cycle.

Establishing yourself

At the end of the day, the IIS is a community of researchers above everything else. When you are new or trying to move your research in a new direction, how do you establish yourself? The IIS provides several community building activities for faculty.

Cognitive Science Seminar

If you decide to lead it, the seminar is an excellent venue for giving other faculty a **deep** look at your research area. Even if you are just a participant, the seminar is the best way to help with your optics.

TIP | If you don't attend the seminar regularly, people probably won't know who you are.

Leading the seminar can be very helpful for new faculty or faculty interested in pursuing a new research direction. The seminar lets you engage other IIS Affiliates for an entire semester - it is comparable to them sitting in a class on your research area for a whole semester. Because other Affiliates know your area better, your leading the seminar creates a natural context for collaborative projects and proposals.

The seminar traditionally has invited speakers for at least some of the public talks, and the IIS provides \$5000 for these speaker's travel, hotel, and meals. The speakers can be faculty with whom you're already collaborating or would like to collaborate, so having invited speakers can also advance your research agenda. Speakers typically have a lunch with students, which presumably includes your students, and are taken to dinner by faculty, again presumably you and faculty who either already overlap in terms of research or who you'd like to recruit into that area.

The seminar is cross-listed with three departments (PSYC/PHIL/COMP) and is a required course for the CogSci graduate certificate. Faculty leading the seminar often recruit students from other departments into their labs by getting to know them in the course. The format of the course is typically discussion-based, with a final paper/project. These details can be changed as needed, but it

is important to remember that because the class is cross-listed, assignments need to be suitable for students from different backgrounds. One way to handle this is to give slightly different options for assignments depending on how the student registered for the class (i.e., under PSYC vs. under COMP).

Finally, the seminar is very popular with Affiliates and is usually booked a year in advance. So if you're thinking about leading a seminar, talk to the IIS Director, Alistair Windsor, right away.

Speed Date

The Speed Date has some of the same advantages for establishing yourself as the CogSci Seminar but is a much smaller commitment. It can be useful for getting yourself introduced to the community if you haven't had a chance to lead a CogSci Seminar yet. Faculty sometimes get a little too focused on their 5-minute presentation; while that is important, the reception afterward is also important. The reception will give you a chance to talk to other faculty while your presentation is fresh on their minds. Also, if you have students with posters, their presentations to other faculty can be a great way to get your message out.

Getting on projects

The IIS has a tradition of being very welcoming to faculty. If there is an established project that you think you might be interested in, talk to the faculty leading the project and see if it would make sense to sit in. By sitting in on a project, you will get to know other faculty's research and have opportunities for collaboration that might lead to publications.

Faculty resources

The IIS provides various resources, but with the exception of staff time and a portion of our graduate assistantships, availability of these resources need to be confirmed each year as funds become available. Unfortunately, it is difficult for the IIS to declare availability by a specific date, for example, September 1st, because our indirect cost recovery funds are not released to us predictably.

Graduate assistantships

The IIS assigns GAs to our faculty lines (which often don't receive departmental support: Banerjee, Bidelman, Olney, Pavlik, Rus), then to IIS grantees whose external grants have ended and need "bridging" support between grants, and then to the IIS generally. The IIS has a strong tradition of faculty not abusing this arrangement; it is relatively common for our faculty lines to release their GA slots back to the pool when they have grants to support their students.

Each year in late spring, assuming that any slots are unfilled, the IIS issues a request for proposals to all Affiliates for 1-year GAs that start the following fall. The 1-year GAs are non-renewable, cover up to 9 hours of tuition (any additional hours must be approved on a case by case basis), and are paid \$1200/month for pre-masters students and \$1500/month for post-masters students.

Faculty proposals should be 1-2 pages in length and include (1) what the student would work on (2) how the student is currently funded (3) how the student's efforts will mesh with your own efforts to

gain future external support.

Faculty who are not planning to submit are encouraged to volunteer to review the proposals.

Software development support

The IIS currently solicits proposals for software developer time on a six-month cycle. Each cycle consists of two-month assignments to three different projects. After two months support will shift to the next project, so establishing sustainability/continuity on each project is key. That means that other personnel should work closely our senior software developer, Andrew Tackett, so that they can function independently after the two-month assignment ends. Faculty receiving assignments will be asked to provide feedback on Andrew Tackett's performance for annual evaluation purposes.

What can a software developer do? The items below are taken directly from Andrew Tackett's job description:

- Develops large and complex system projects and prototype implementations by participating in and overseeing the design, coding, testing, debugging and documentation activities of project staff.
- Establishes project plans and schedules and monitors progress, providing status reports as required.
- Conducts detailed systems analysis to define system scope, objectives and implementation approach. Entails attending research meetings and collaboratively working with research staff, faculty, and students.
- Develops system definition, architecture and detailed needs analysis including hardware and software recommendations based on system analysis.
- Maintains versioning, code repositories, and releases of grant-developed software to prevent past research from being lost or becoming obsolete due to hardware changes.
- Contributes text to project reports and technical papers.
- Establishes and implements user training programs, tutorials and other materials necessary to present and support research results.
- Maintains testing suites and runs regression tests on software to ensure that software modifications do not negatively impact past research.
- Responsible for technical presentations and system demonstrations (preparation, setup, and delivery) at conferences and funder events.
- Responsible for new developments and technologies by reading journals and other pertinent publications.
- Performs other duties as directed or required.

Travel support

Travel funds are provided for the following activities:

- To support conference travel where the faculty member is presenting a peer-reviewed

publication (or equivalent by discipline)

- To support travel to sponsor meetings for the purpose of obtaining new funding (typically DoD)

Sponsor meetings that are part of existing grant obligations should be funded by those grants, and grant-related travel should be funded by grants.

The funding amounts are \$2000/yr for Affiliates and \$3000/yr for IIS faculty lines.

Travel authorization paperwork and reimbursement will be handled by the IIS.

Laptops for PIs

A laptop is provided to PIs with a new grant award, but no more than once every two years per PI.

Staff

[See Staff, Chapter 1.](#)

Grant Responsibilities

The PI is ultimately responsible for the grant. This includes:

- Managing personnel
- Spending money appropriately consistent with sponsor guidelines and project goals
- Writing reports
- Talking to the program officer
- Certifying and approving effort

The IIS provides additional support, both at the pre-award stage and at the post-award stage with the following:

- Purchasing
- HR actions like GA contracts
- Budget oversight and reports (on a month or semester basis)
- Compliance with UoM policies and federal guidelines
- Advance account requests

Grants accounting and the IIS work together closely to handle the actual spending and invoicing of the award. Grants accounting also plays an important role in the initial set up of the award in the Banner financial system:

- Set up index, positions, salary splits (**effort**), cost share
- Loosely monitor budget and time (on a year to year basis)
- Invoice the sponsor; coordinate with sponsor for regarding billing
- Review and approve/reject charges

- Process budget revisions and approve/reject revisions

The Office of Sponsored Projects handles what you might consider contractual issues with the sponsor and award. Most of these actions occur at or before the award is made:

- Proposal submission
- Notification and processing of the award
- Subcontracts

Grant life cycle

Obtaining and managing grants can be fairly complex. The IIS has a variety of resources and staff support to help. Probably the best way to think about grants is in terms of a life cycle [4: Some of the content in this section comes from the presentation, "Managing Your Grant and Contract Funds," by the Department of Instruction and Curriculum Leadership.]

1. Idea
2. Finding opportunities
3. Forming a team
4. Proposal
5. Award
6. Implementation
7. Closing down

Idea

It all starts with an idea. Ideas can come from many places, but at the IIS we have a particular orientation towards interdisciplinary research.

Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

— Committee on Facilitating Interdisciplinary Research, *Facilitating interdisciplinary research*. 2004. p. 2.

How do you have an interdisciplinary idea? Most likely by working with people from other disciplines, learning about those disciplines, and making the connection between your discipline and those disciplines. This should happen naturally as you participate in the IIS community. A complementary approach is to look for authentic problems in city, county, or state where you can make both a research contribution and a societal contribution.

Finding opportunities

There are many different types of grants:

- Federal grants
 - Department of Defense
 - Institute of Education Sciences
 - National Institutes of Health
 - National Science Foundation
 - **Any federal agency over a certain size is likely to have some kind of grant program**
- Industry grants
 - Microsoft
 - Amazon
 - **Industry usually funds grants only in areas relevant to them**
- Foundations
 - Toyota USA Foundation
 - John Templeton Foundation
 - Spencer Foundation
 - **Foundations often have specific causes that they fund**

Most sponsors have multiple opportunities at any given time, which means that there are literally hundreds or thousands of opportunities to navigate.

There are several strategies you can use to find potential sponsors:

Meet with Adam Remsen

Meet and discuss your area and interests so Adam Remsen can search existing opportunities and forward future opportunities to you.

Talk to colleagues

Usually, the funders of a research area are well established. Colleagues at the IIS or your department likely can make good recommendations.

Read acknowledgements

Most grants require acknowledgment in publications. When reading papers in your field, make a note of who funded the research. For federal grants, there is often a grant ID mentioned that can be used to find a complete public record of the grant on the web.

Explore

Especially for the larger federal sponsors, it is worthwhile to spend some time exploring their opportunities at a high level so you know how they are structured. For example, NSF is hierarchically structured with funding programs under divisions under directorates.

Try a recommendation service

The university has been experimenting with various services that recommend grants to faculty based on their profiles, like [GrantForward](#).

Forming a team

You may decide to form a team before the proposal stage or during the proposal stage. The advantage of forming a team beforehand (or alternatively working with faculty beforehand) is that you will have a better idea of each team members strengths and research interests. If you form a team during the proposal phase, you will have an extra layer of complexity in figuring out how to organize the team. This can be particularly complicated if you are working across institutions on a large project.

Proposal

It is very important that you disclose your intent to submit (even if it is tentative) to Adam Remsen as early as possible and more than a month before the submission deadline.

It is also important to understand that Adam Remsen does not have complete control over your proposal submission. Adam Remsen's job is to:

- Read all the requirements of the solicitation
- Track, and to the extent possible, create all required proposal components
- Get approvals (particularly budget) from our Office of Sponsored Programs (OSP)
- Route a Proposal Summary Form through Cayuse to get signatures from chairs and deans.

IMPORTANT

The Proposal Summary Form must be completed correctly for the IIS to get indirect cost recovery!

Adam Remsen does not submit the final proposal. When the proposal is finalized, Adam Remsen will notify OSP, and OSP will add any additional institutional information and submit the proposal. Therefore it is very important to have the proposal ready before the sponsor's deadline so that Adam Remsen can pass the proposal to OSP in time for them to do their job.

One of the most important aspects of the proposal is the budget because it determines almost everything else. When you meet with Adam Remsen to prepare the budget, there are several things to be particularly cognizant of:

- Travel
- Computers
- Students
- Staff
- Effort

Travel

Some sponsors limit travel, and some do not. Many sponsors **require** travel to coordinate with the sponsor (e.g., DoD and IES). Do not handicap your budget by eliminating **necessary** travel! If your project has dissemination goals, budget travel to advance those goals. Travel should be calculated based on these goals and the number of personnel on the project who are advancing these goals.

For example, if students are going to be involved in dissemination, set reasonable targets for the number of conferences students will present the research at given their current development (e.g., 1 per year or 2 per year). Although the IIS will fund student conference travel, it is entirely appropriate to fund travel directly off the grant when the travel meets project goals.

Finally, the University requires separate line items for international and domestic travel. Make sure to put some funds into international travel if there is **any** chance you will need to travel internationally.

Computers

Computers used to be considered special equipment. Now they are considered office supplies, meaning they cannot be charged to a grant **unless** they fulfill a special purpose. This is called an **unlike circumstance**.

Any computer that is being used by graduate students for purposes like checking email, doing classwork, or writing their thesis, cannot be treated as an unlike circumstance. An unlike circumstance would be appropriate for a computer driving a piece of equipment like any eyetracker, a computer only used for experiments, a computer used for advanced software development, or a server. Any unlike circumstance computer can be directly charged to the grant. The IIS will only provide computers for funded projects if they fall into the category of office supplies.

Students

There are [many ways to hire students](#) on a grant. Each of these has its own rules, and it is beyond the scope of this document to discuss all the rules and restrictions that apply to all categories, particularly those involving different kinds of visa restrictions for international students. However, some salient issues are briefly noted:

Graduate Assistants

Graduate assistants (GAs) on contract for a **maximum** of 20 hours a month and are compensated with some combination of tuition and stipend. It is recommended that tuition and stipend are matched dollar for dollar, e.g., 10 hours and half tuition, though flexibility is possible. Funding agencies typically place no upper limit on stipend amount, so you can pay your students whatever you think is fair and competitive. **You will not make your grant more likely to be funded by underpaying your students.** Please do not intentionally "split-fund" students across grants and departments. This creates unnecessary complexity, both in terms of contracts and in terms of effort reporting. You are encouraged to fully fund students on grants at a competitive wage. Finally, 9 hours is considered full enrollment and is required for departmental GAs and international GAs until they finish their coursework. However, cost variations from 9 hours can occur: students who are domestic and choose to take less may cost less, some programs require more than 9 hours, and

some classes/programs have additional fees. It is important to consider all of these factors when planning the GA portion of your budget.

Student employees

Student employees **must be students enrolled in a minimum number of hours and are capped at 25 hours per week**. By definition, student employees cannot have another position like a GA. As a result, it is more common for student employees to be undergraduate students than graduate students, but it is possible for graduate students also to be student employees. From a budgeting perspective, choosing an hourly rate, number of hours, and number of employees makes calculating these costs fairly straightforward.

Staff

There are more restrictions on grant-funded staff than on students. Depending on the sponsor, you may not be allowed to hire staff to do a particular kind of work. For example, you may not be allowed to hire staff to do clerical work. As with student employees, it is beyond the scope of this document to discuss all staff hiring and employment-related issues, but a few are briefly noted.

Temporary employees

Temporary employees are the easiest to hire. The hiring process does not typically involve a formal search. However, temps have limited duration employment (less than a year) and do not receive full benefits. They must work 100% on the grant that funds them.

Regular employees

Regular employees on a grant must go through the same hiring process for any staff member at the university. Therefore it may take 2-3 months to complete a hire. They have no duration (except the lifetime of the grant that pays them) and receive full benefits. Importantly their position is tied to the grant and ends when the grant ends. They must work 100% on the grant that funds them.

Limited positions

Limited positions do not exist within grants but may be funded by grants. List regular employees, they must go through a full search process. Limited positions exist at the department level or above, extend beyond the lifetime of the grant (as long as there is another funding source), and may be split across projects. In theory, limited positions are most appropriate for high-value employees who are funded by grants and who wish to remain at the university for an extended period of time. In practice, however, staff who start in other positions and then go through the hiring process to obtain a limited position usually do not stay longer than an additional year.

Missing from the above discussion are postdocs, research faculty, and research scientists. These are all considered to have faculty status, rather than staff status, and so follow the normal faculty hiring and employment processes. These positions may be set up as limited positions or they may not.

Effort

For federal compliance, grant personnel (faculty, students, and staff) are required to report effort.

At the University of Memphis, effort is reported three times a year: fall, spring, and summer semesters. Faculty effort will typically be 100% in their department. When a grant is awarded that has faculty effort during one of the three effort reporting periods, faculty effort during that period is reallocated from the department to the grant. This is one of several reasons why the department chair, as financial manager of the department, has to approve the grant proposal before submission.

Faculty who are overseeing a funded student during the academic year should have some effort during the academic year consistent with that supervisory role. As a general rule, effort should be reported when it is expended. Some sponsors, e.g., NSF, allow for very little effort on grants, and faculty may feel pressured to expend/report that effort during the summer. In such cases, it may be appropriate to request **cost share**, which is a way for the university to sponsor some of your effort on the project. It is important to understand that cost share becomes part of your effort, and you cannot double count cost-shared effort across projects. Cost share is a somewhat complicated subject, but essentially can be voluntary/mandatory and committed/uncommitted. The first factor corresponds to whether it is required in the proposal, and the second factor corresponds to whether cost share is specified in the proposal/budget and is therefore contractually binding. Returning to the NSF example, it may be appropriate for faculty to request a voluntary uncommitted cost share (which NSF allows) of 10%, which approximately equals one course. Such a cost share would then appear on effort certification.

Effort not only has implications for effort reporting but also for faculty compensation. The University of Memphis offers some extremely competitive incentive policies. The first, summer salary, is typically available at research universities. Through this program, any effort during the summer charged to the grant is paid out to the faculty member proportional to their 9-month salary. The second program is called **incentive pay** and applies to the academic year. During this time period, the faculty member's salary could be seen as supported by the grant, with the university saving the cost. However, the University of Memphis pays the faculty member's salary and gives the faculty member **up to half** of the grant-charged effort. Incentive pay requires the chair's approval, and the department must be reimbursed for any grant-incurred costs, like replacement instructors. When both of these incentive policies are considered, a 9-month faculty member who is 100% effort on grants will make $1 + 1/3 + 1/2 = 1.83$ times their base salary.

Another incentive policy indirectly tied to effort is indirect cost recovery. The University of Memphis has an indirect cost rate (or facilities and administration rate) negotiated with the federal government, meaning that all federal grants are charged the same rate for overhead costs like electricity, heat, cleaning, etc. The University of Memphis redirects these funds to various sources, including the college, research center, department, and investigators, based on the dollars spent on the grant in the previous fiscal year. How is this tied to effort? When the proposal summary form is created, there is an item for **shared credit** between faculty on the proposal. This shared credit will be used to determine future splits of indirect cost recovery between the units listed above. Although there is no set policy for determining shared credit, one way that PI's may wish to calculate it is by looking at their effort as a proportion of total effort on the project. For example, if a faculty member is contributing 1 month of effort to a proposal where the total effort by all faculty is 4 months, then that faculty member's shared credit could be estimated as 25%.

Award

Notification of the award will usually be communicated from the sponsor to the Office of Sponsored Projects. You may or may not be cc'd on that initial notification. Office of Sponsored Projects will process and approve the award and then notify you. OSP's approval will trigger grants accounting to set up one or more accounts Banner according to your budget. Your budget will be grants accounting's blueprint for setting everything up, including effort and positions. Some grants are structured such that you will receive a new award notification each year. Similarly, a no-cost extension may be processed with a new award notification. However, additional years and NCEs usually do not trigger the creation of new accounts in Banner.

Implementation

Spending appropriately

Jenice Jackson and Mattie Haynes will help you spend grant funds appropriately. Typically this means proper allocation of summer salary, academic year incentive, student contracts, equipment purchases, and travel. It is important to understand that some costs are **allowable** and some costs are not. Allowable costs are:

- Allowed by the sponsor
- Allocable to the project
- Reasonable and prudent costs
- Consistent costs
- Conform to university policies and regulations
- Conform to OMB Circular A-21

IIS staff and grants accounting will guide you regarding allowable costs.

Purchasing

There are [three primary ways of purchasing](#). The simplest is the purchasing card held by Renee Cogar. The P-card can be used for online vendors, like Amazon, if the price is low. The next easiest is TigerBuy. Many pre-approved vendors are on TigerBuy and have specialized web portals that the university can use to buy goods at a pre-approved rate. Finally, the university has a bidding process for expensive products where there is not already a vendor agreement in place and the product is not sole-source. Different purchases will follow different procedures with corresponding timeframes for completion.

Hiring

Hiring GAs tends to be fairly straightforward, with no search required, and the university has an e-contract system in place to facilitate. Hiring staff and faculty-equivalent positions, however, requires following [the university's general hiring procedures](#). Briefly stated, hiring regular staff requires

1. A position number backed with 1 year's salary (or more)

2. A position posting which must be approved at multiple levels and be publicly available for two weeks
3. Interviews of candidates
4. A hiring proposal, which is followed by a background check and various approvals

A timeline of 1-2 months to complete these steps would be a reasonable expectation.

Faculty-equivalent searches are much the same except they have a committee involved in all decisions, a broader advertisement plan, and a longer posting period. These additional factors typically add 1-2 months to the process.

Budget changes

Changes to the budget are inevitable. Common reasons for budgetary changes include delays in filling positions, changing price of equipment, and change in faculty effort. It is important to note that some changes require the approval of the sponsor.

Any change to the budget will affect when the project runs out of money. Therefore the PI should work with IIS staff on a new budget any time a significant expense adjustment occurs, e.g., a student funded by the project graduates. Because some funding categories incur indirect costs and some do not, be very careful when planning to spend funds by moving them across categories. For example, unspent student funding that is moved to faculty effort would need to have indirect costs applied. Failure to remove indirect costs, in this case, would result in overspending. As always, IIS staff are your best guide.

Very importantly, if personnel effort changes, grants accounting must be notified. Personnel effort has implications for payroll and effort reporting. These systems are essentially automatic once they are set up (at the award stage). Work with IIS staff to make sure effort changes are reported to grants accounting in time to be reflected in payroll at the start of the semester.

Closing down

Many sponsors allow for a **no-cost extension (NCE)** of the grant. This is usually a 1-year extension, with no additional funding, in which the PI can wrap up the project and spend down the remaining funds. It is sometimes possible to get a second no-cost extension, but these are typically scrutinized very carefully. Sponsors usually consider it inappropriate for a PI to plan on a no-cost extension before the last 3-6 months of the project. However, towards the end of the project, if project goals have not been fully advanced, it is wise for the PI to investigate sponsor rules for requesting an NCE.

When the grant is really going to end, it is important to monitor spending closely. Ideally, all grant funds would be spent on allowable costs. Unspent funds will not be available after the grant project period ends. Overspending will not be charged to the sponsor but instead to the PI's indirect cost recovery account and then, if the PI's account is exhausted, to the PI's department.

It is particularly important to plan for grant staff separation. This only applies to grant staff and not students or base-budget faculty. Grant staff have benefits, like annual leave, that, if they have not been taking leave, will get charged to the grant on separation. Annual leave benefits accrued by limited positions on previous grants can also be charged to your grant if they are separating from

the university.

Summary

At this point, you should know **most** everything you need to be a successful IIS Affiliate.

Staff

This chapter is for staff. It serves as a guide for IIS departmental activities and timelines and is not meant to subsume or replace guidelines at the college and university levels. Faculty may also consult this chapter for a better understanding of how the IIS operates internally.

Regular Duties

[See Staff, Chapter 1.](#)

Cyclical procedures

Many IIS activities and procedures are tied to the academic calendar.

Semester Start Activities

Email lists

Renee Cogar should consult the IIS web site and Alistair Windsor to see if any Affiliates need to be added or removed from the email lists. Additionally, any changes in chairs and deans of Affiliates, as well as higher administration contacts, should be reflected in the email lists. Affiliates should be contacted to see if they have any additional students to add to the mailing lists. Coordinators for the undergraduate and graduate programs (Andrew Olney/Andrew Olney) should be contacted to see what students are currently enrolled in IIS programs so their names can also be added to the email lists.

Room scheduling

Renee Cogar should contact all Affiliates before the start of the semester to inquire if they need meeting space. Affiliates with existing scheduled meetings should be given priority for the times they have previously scheduled. The new meetings should be posted on the Google Calendar that displays on the wall projector outside 405 as well as the IIS website.

Keys

Renee Cogar should contact Affiliates to see if they or their students need keys or electronic access permissions.

IISSO

Alistair Windsor should meet with the president of IISSO to ensure that proper leadership is in place for the IISSO to handle student travel and thesis awards, Speed Date poster session, and lunches with CogSci seminar speakers. Alistair Windsor should communicate how much funding is available for various programs. This is an excellent opportunity to reflect with the IISSO about what works well and what could be done better.

Student Travel and Thesis Awards

Jenice Jackson should email Affiliates and ask them to confirm student eligibility for travel and thesis awards. Eligibility information should then be shared with IISSO. IISSO is responsible for managing these programs and should notify Jenice Jackson of their funding decisions. In the case of thesis awards, the IISSO should forward the relevant completed forms so that Jenice Jackson can ensure that the thesis advisor has certified the student has successfully defended their proposal and obtained any needed IRB approval.

Speed Date

Renee Cogar should book a room for the Speed Date early because the best space (Lower Atrium of the Fogelman Executive Center) is often booked in advance. The IIS has been holding the Speed Date on the Thursday before exams/study day for the past several years.

Alistair Windsor should contact Affiliates to speak at the Speed Date for the semester. Since the talks are 5 minutes with 1-minute transitions, there are 9-10 slots to be filled.

Cognitive Science Seminar

Travel

Renee Cogar should work with faculty leading **next semester's** seminar to make travel and hotel arrangements for their invited speakers.

Communication

Renee Cogar should obtain a speaker schedule or syllabus from the faculty leading the current seminar and distribute on email lists. The schedule or syllabus should also be sent to Adam Remsen to put on the IIS website and to **This Week** who will post the talks each week in their newsletter.

Recruiting Faculty Leaders

Alistair Windsor should recruit faculty leaders for future seminars. It is best for the seminar to be booked out a year in advance as many departments need that much lead time to handle instructor changes for courses that faculty leaders might have otherwise taught.

Graduate Assistant Contracts

Jenice Jackson should contact all Affiliates and ask if there are students they wish to place on contract for the semester or previous students who they do not wish to continue for the semester.

Grant submissions

Adam Remsen should email all Affiliates with an introduction of services provided and an invitation to set up a meeting to discuss grant opportunities.

Degree Programs

Coordinators for the undergraduate and graduate programs (Andrew Olney/Andrew Olney) should email all Affiliates and students regarding how students may enter, advise, and complete these

degree programs.

Communication

Adam Remsen should check the IIS website for any outdated or missing information, particularly with regard to Affiliates.

Adam Remsen should similarly check the IIS brochure and ensure that sufficient copies are on hand for the needs of the semester.

Leah Windsor should check that IIS Affiliates are aware of social media capabilities. Students who are graduating should be invited to join the IIS LinkedIn group for tracking and fundraising purposes.

Software Development Assignments

Alistair Windsor should email faculty for proposals for Andrew Tackett's assignments for the six months starting in January (RFP in fall) or July (RFP in spring).

Spring Semester Additional Activities

Student recruiting funds

Alistair Windsor should email all Affiliates notifying them of student recruiting funds for bringing prospective students to campus. The criteria are :

- The student must be in the top 10% of the department's pool (by some objective measure) or be from an underrepresented group.
- Each Affiliate can recruit one student per year with this mechanism.
- The amount of funding the IIS provides is based on the number of IIS Affiliates who are going to meet with this student.

Previous funding limits have been \$200 * the number of IIS Affiliates meeting with the student up to the total costs of the visit.

Faculty Evaluations

Alistair Windsor should email all IIS faculty lines and postdocs requesting they evaluate the director. Following this evaluation period, Alistair Windsor should send a follow-up email requesting they update their provost CV and turn in their annual planning narrative (or equivalent). When these are obtained, Alistair Windsor will complete faculty evaluations. For tenure-track lines with tenure housed in other departments, the evaluation should consist of a letter/memo sent to the chair of the tenuring department with the dean of that department cc'd. For IIS lines with no external tenure home, evaluations should be conducted using the university's electronic system.

Staff Evaluations

Alistair Windsor should complete non-exempt staff performance appraisals by 2/28 and exempt

staff appraisals by 3/31. Currently, Andrew Tackett's appraisal is partially based on input from the faculty from Andrew Tackett's assignments. Ideally, that input will be documented in email by the faculty involved shortly after Andrew Tackett's assignment ends.

Inventory

Jenice Jackson should conduct an inventory of all IIS equipment. The equipment should either be on the 4th floor of the FIT, in the server room of the main library, in departmental server rooms (e.g., Psychology) or off-campus. It is recommended that all laptops and tablets be covered with an off campus form.

Annual Report

Alistair Windsor should complete the IIS Annual Report by the end of May using the following information:

- Financial information provided by Mattie Haynes
- IIS GA assignment funding provided by Jenice Jackson
- Student travel award and student speed date presentation provided by IISSO
- Grant award activity provided by OSP
- Publication/citation information provided by Google Scholar through Publish or Perish

All other information (awards, media attention, outreach) should be tracked by Alistair Windsor throughout the year. The report should be distributed to Affiliates and administrators.

Graduate Assistant Request for Proposals

Alistair Windsor should contact Affiliates to see if student bridging support is needed. Faculty requests should be verified by Mattie Haynes. An RFP should be circulated for remaining slots, or slots created to spend down budget surpluses, by May 1. The RFP should allow faculty at least two weeks to respond with a 1-2 page proposal. Proposals should include:

- What the student would work on
- How the student is currently funded
- How the student's efforts will mesh with faculty own efforts to gain future external support

Ideally, proposals are reviewed by Affiliates who are not proposing based on:

- Clarity of technical plan
- Intellectual merit
- Potential for future funding
- Enhancing collaboration between Affiliates

Affiliates should be notified of funding decisions by the end of May.

Event-Triggered Procedures

Grant Submission

Upon notification by faculty of their intent to submit, Adam Remsen will begin a Proposal Summary Form for routing and the associated budget. Adam Remsen will explain the process to the faculty and document a timeline for what documents are needed when, and what documents are bottlenecks for processes proceeding, e.g., a budget for the PSF. Adam Remsen should begin collecting non-narrative documents immediately, such as biosketches, letters of support, facilities documents, data management plans, or similar documents required by the sponsor. All documents should be kept in a cloud-storage accessible folder (e.g., Google Drive) with all non-current versions of documents stored in a "previous-versions" subfolder. The cloud-storage folder should contain a spreadsheet that details the timeline and status for each required document. Both Adam Remsen and the faculty will subscribe to notification changes to this document if possible (e.g., Google Sheets). Finally, Adam Remsen should set a calendar reminder to notify the faculty each week of various document status, what is needed to make progress, and any obstacles.

New Grant Award

Mattie Haynes should meet with the faculty to go over the new account, establish any plans for hiring personnel, and confirm that no deviations from the original budget need to take place from the outset.

Jenice Jackson should contact the faculty to see if any student contracts need to be issued under the new award.

Alistair Windsor should confirm that the faculty has adequate space and computer equipment for the project. If new space access is needed and approved, Renee Cogar should contact the faculty member to see what keys or electronic access are needed for project personnel. If the faculty is eligible for a laptop under the Laptop for PIs program, they should be offered a laptop with any purchase being handled by Jenice Jackson.

Advance Account

From the perspective that advance accounts are loans guaranteed by departments, the IIS should exercise discretion in whether to guarantee an advance account. Requests should be approved by Alistair Windsor based on the proposed spending plan and sponsor reliability. Once an advance account is approved, Adam Remsen will prepare the advance account paperwork under the direction of Mattie Haynes .

Final Year of Grant Award

Mattie Haynes should meet with the faculty to go over their spending plan for the final year, to ensure that every dollar is spent appropriately without overages. The spending plan should be documented in a contractual fashion with the faculty member agreeing to abide by the spending plan and to contact Mattie Haynes immediately if any deviations from the spending plan occur.

No-Cost Extension

Preparation of no-cost extension should be collaborative between the PI, Mattie Haynes, and Adam Remsen. Mattie Haynes's primary role is to account for expenditures and perform any necessary budget projections. Using this information, Adam Remsen together with the PI will assemble the documentation required by the sponsor.

Funding Terminated

Affiliates who have previously been granted IIS space under sponsored research typically receive a 1-2 year grace period when funding lapses.

In the first year of the lapse, Alistair Windsor should contact the Affiliate to let them know that they have been given a grace period and to expect to vacate the space if funding is not reestablished.

New IIS Affiliate

Alistair Windsor should discuss affiliation, handle signature of the affiliation agreement, send the Affiliate a link to the IIS handbook, and notify IIS staff of the new Affiliate.

Renee Cogar should add the Affiliate to the faculty list and inquire if the new Affiliate has any students to add to the student list.

Adam Remsen should add the Affiliate to the IIS web site.

Affiliate Recognition

When an Affiliate's work is recognized, whether internally or externally, Alistair Windsor should ensure that the recognition is communicated throughout the IIS and the University:

- Alistair Windsor announces the recognition on the IIS mailing lists
- Leah Windsor announces the recognition on social media
- Alistair Windsor contacts Mary Ann Dawson if a press release is warranted

Outreach/Tour/Demo Requests

Alistair Windsor should determine how to respond to outreach/tour/demo requests. Typically these are restricted to the 4th floor of the FIT, but all Affiliates should be given a chance to participate if they desire. Outreach/tour/demos should be appropriately branded to enhance the image of the IIS in the community.

Counteroffers

Typically the administrative unit of record is involved in counteroffers, i.e., the IIS would only be involved for its faculty lines. However, from time to time, other departments engage the IIS for assistance in retaining faculty or recruiting. Alistair Windsor should determine how to respond best to advance the interests of the IIS.

Hiring

Grant Staff

Grant staff hiring should be performed by the PI on the project, facilitated and guided by Mattie Haynes.

IIS Staff

Alistair Windsor should work closely with Mattie Haynes to define or modify the position description and complete necessary HR actions.

Position interviews are typically conducted one on one with the Director and either one on one or in a group with the staff, as appropriate.

Some positions require specialized technical skills that the Director may wish to evaluate, as approved by HR.

Faculty

The current Memorandum of Understanding required by the College of Arts and Sciences for interdisciplinary hires details how the larger aspects of the position are defined with relation to the IIS and the tenuring department. However, the brevity of that document does not leave room for a statement of principles and the mutual advantages of the interdisciplinary hire. The principles and mutual advantages are outlined here but are available in a free-standing document.

Principles

The overarching principle of these interdisciplinary positions is that they will result in a tenured faculty member with whom both the IIS and the tenuring department are happy. Neither unit should at any time feel that they are "stuck" with a faculty member they don't want. In order to facilitate this outcome, it is important for both units to agree throughout the search process and throughout the tenuring process.

Search

The search committee should represent both IIS and departmental concerns equally well to ensure agreement later on. Ideally, the committee is chaired by a member of the department who is also affiliated with IIS.

The committee's process should hold to the traditions and practices of the department as much as possible. What follows is an example of the process that has previously been used with great success in these searches.

1. The committee creates the advertisement, advertising plan, and solicits applications through their social networks. The IIS pays for advertising costs and does the administrative paperwork involved in the search (e.g., WorkForUM).
2. The committee reviews applications, determines acceptability, and rank orders a list of candidates for interview (usually 3-4) as well as a list of alternates.
3. The committee's rank ordering is presented to IIS Faculty who vote to approve the rank

ordering or propose a different ordering to the committee. A mutually acceptable ordering is presented to departmental faculty who likewise vote to approve the current rank ordering. Reorderings/disagreements at this stage are likewise sent back to committee and may require re-presentation to IIS Faculty. In order to ensure a smooth process with minimal revisions, it is important that the search committee be able to represent the viewpoints of both units accurately; this is likely to produce an ordering of candidates that is approved without revision by both faculties.

4. During the interview process, great care will be taken to ensure that the traditions and norms of the tenuring department are followed. This may include specific times for the candidate's talk and receptions at a faculty member's house, or any other tradition. An additional half day or full day may be required to accommodate IIS-specific interviews. Costs for interviews are typically borne by the IIS.
5. After interviews, the search committee will rank the candidates. This ranking will be approved by both units using the process described in (3) above. No candidate will be hired who is deemed unacceptable to either the IIS or the home department.
6. Offers and negotiations will be conducted jointly with the IIS Director and department chair. The reason is that both heads have resources that may come into play. Moreover, this creates confidence in the candidate that both heads are collaborative and enthusiastic about the hire.

Resources

The IIS is able to provide much in the way of resources for hires, including startup, lab space, and ongoing GA support. As the academic unit of record, the IIS is responsible for 100% of the candidate. This is in contrast to previous interdisciplinary hire arrangements (see the IIS Strategic Planning Self-Study for a history). As a result, the IIS is financially responsible for the hire. This means, for example, that the salary for the line is with the IIS, as is the responsibility for advance accounts, overspending, and other financial matters. The IIS has extensive resources for financial and research support and can therefore virtually eliminate the administrative burden on the tenuring department (with the notable exception of annual evaluation and tenure processes outlined in the MOU).

However, it is important to consider how department and IIS resource decisions made at hire will affect the candidate and their presence in each unit. If the candidate has no presence in the tenuring department (no office or lab space), then there are fewer opportunities for the candidate to interact with members of their tenuring department, limiting collaboration. It is important for the candidate to have equal access to departmental graduate admissions pools, serve on or chair thesis/dissertation committees, and otherwise have opportunities consistent with a normal faculty member in the department. The principle is that resource decisions should not undermine the candidate's chances relative to regular departmental hires.

Tenure

This process is well defined in the existing MOU format from the College of Arts and Sciences.

Mutual Advantages

Both IIS and tenuring department will benefit from the interdisciplinary hire. In many ways, the advantages are symmetric, with both units benefiting equally. We briefly outline these and note

specific exceptions.

Teaching

The historical load of these positions is 1-1 given their research-intensive nature. As stated in the MOU, half of the courses are determined by the department and half by the IIS. However, it is almost always the case with current hires of this type that the department benefits from all courses, as the IIS selection nearly always is a listed course in the department (usually at the graduate level). It is unclear given SRI how the 1-1 load will be preserved, but in recent conversations, the Dean is disposed to at least preserve the 1-1 load during the tenure evaluation period. Additionally, the hire will serve on thesis/dissertation committees within the department and mentor graduate students within the department as well as IIS.

Research

The research of the hire should be of interest and value to both units. Given the research-intensive nature of the position, there is a high expectation for externally funded research with the IIS. All IIS lines are grant-active and generate IDCR for both the IIS and the tenuring department. Given the already reduced load, teaching buyouts are not typically encouraged, but should the IIS or department support a buyout, salary recovery for release (whatever the current percentage is recommended by CAS) will be transferred as needed.

Service

As University citizens, the hire will be called on to serve on University, IIS, and departmental committees. Of all the hire's effort, service is the last to be bought out (e.g., a 100% externally funded faculty will have bought out service, but an 80% funded faculty will not). It is important that the IIS Director and department chair jointly negotiate service with the hire to prevent full service obligations arising from both sides resulting in double service. Successful negotiations will ensure that both units receive the benefit of the hire's service effort.

Mid-Tenure and Tenure

This process is well defined in the existing MOU format from the College of Arts and Sciences. The specific MOU for the faculty in question should be consulted. However, the general procedures follow. In both cases, Alistair Windsor convenes an IIS committee of tenured faculty and appoints a committee chair.

Mid-Tenure

Mid-tenure review will be conducted by the tenuring unit. The Institute will contribute a separate statement to be included in the mid-tenure dossier written by the IIS Director, as well as a letter from a committee of at least three senior IIS members.

Tenure

Tenure and promotion review will be conducted by the tenuring unit. The Institute will contribute a separate statement to be included in the tenure and promotion dossier, written by the IIS Director, as well as a letter from a committee of at least three senior IIS members.

Summary

Most of the common procedures have been covered in this chapter, but the most challenging aspect of administration is that new procedures constantly need to be developed to handle new situations. Hopefully, the current procedures outlined will serve as a model of applicable principles for new situations.