

Mentor Manual
Preparing the Next Generation STEM Employee
Through Mentoring

This manual is intended as a resource to help you provide a mutually beneficial mentoring experience for you and your educational appointee.



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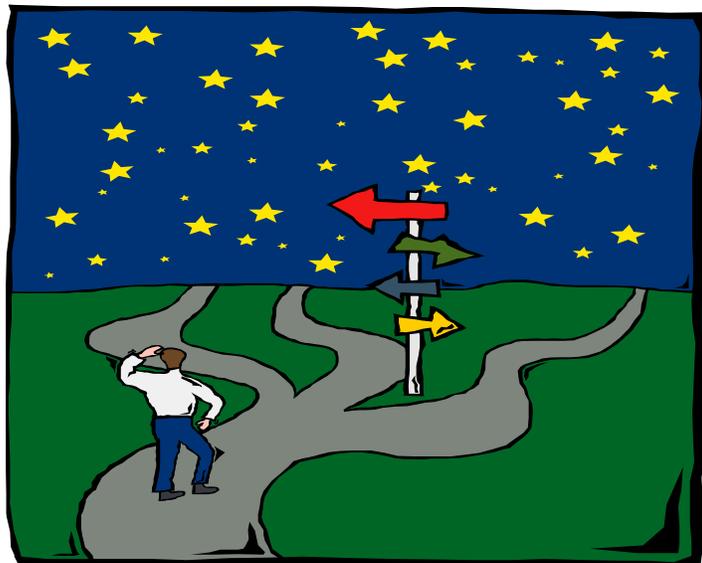
Introduction

Thank you for agreeing to mentor an intern, faculty member or teacher. A good match between the mentor and the participant will provide an enriching, mutually beneficial experience for both. Whether you are mentoring for the first time or you are a seasoned pro, the information contained in this booklet can be used as a guide to help create a satisfying experience. The best mentoring relationships are based on a negotiated process that is adapted to the needs of the both the mentor and student participant. Mentors offer “in-depth” relationships with their interns; they work side by side in the workplace with members of their teams. Some mentors offer advice and guidance only about scientific endeavors, whereas others are available for consultation about job-seeking, fund-raising, academic opportunities and personal life issues.

Interns, in return, seek various things from mentors. Some prefer a distant mentor who does not intrude frequently in their work, or in particular in their private lives. Others seek a more holistic mentor who concerns himself or herself with the life of the aspiring scientist outside the lab or the worksite – the “in-depth” mentoring models. There is no single template for a successful mentoring relationship, and mismatches can be difficult for both parties

This tool kit is intended to provide mentors with information and resources to help them enhance the mentoring experience for mentors and interns. The kit will help the mentor define roles and responsibilities of the interns, establish and clarify expectations and create individual work plans. It also provides tips, ideas and resources regarding how to create an environment that supports a mutually positive and productive mentoring experience.

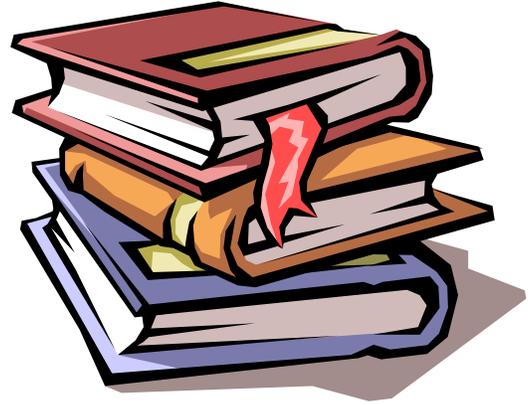
The guide is provided based on multiple sources. All using it maintain the responsibility to apply all rules and regulations for Department of Labor, and other regulatory agencies as appropriate, regardless of the content of this document.



Topics

Part I – Mentoring Fundamentals

- Overview
- Definition of a Mentor
- Terminology of Mentoring
- Benefits of Mentoring
- Mentoring Process
- Goals of Mentoring
- Commitment
- Mentoring Expectations



Part II – Mentoring Relationship and Communication

- Preparing for the Arrival of Educational Appointee
- Establishing Educational Appointee Expectations
- Building the Mentoring Relationship
- Communication
- Giving Constructive Feedback
- Difficulties or Terminating the Mentoring Relationships
- Exit Process

Part III - Tools and Resources

- Mentor Profile & Expectation Worksheet
- Educational Appointee Profile & Expectation Worksheet
- Education Development Plan Worksheet
- Discussion Planner

Part I

Overview

The foundation for the success of the internship is the individual staff members that provide guidance and supervision of the educational appointees. The overall purpose of the mentorship experience is to provide participants with opportunities to learn as much as possible about a specific area of scientific research or technology. The mentors provide needed direction and overall guidance to ensure that educational appointees have meaningful and productive experiences while being involved in real life research assignments. This also helps the mentor gain productivity from the intern.

Definition of a Mentor

A mentor is broadly defined as a trusted advisor, teacher, coach, facilitator and/or role model. The primary purpose of the mentor is to help his/her mentee or educational appointee succeed. Effective mentoring can help the educational appointee to understand and learn in a safe and professional work environment, and to establish and communicate a framework of what is expected in the work place. A mentor provides support and helps to create a positive working atmosphere by orienting the educational appointee to the professional work environment.

Examples of what mentors provide:

- An opportunity to learn
- Meaningful work related to academic and career goals
- A realistic education and development plan
- Guidance and coaching
- Necessary materials required to do the work described in the Education and development plan

Terminology of Mentoring

Mentoring	A nurturing process that fosters the growth and development of the educational appointee
Mentor	A teacher or advisor who leads through guidance. The mentor challenges and develops the educational appointee by providing support and guidance
Role Model	A person whose behavior in a particular role is imitated by others: one who leads through positive examples. A role model pulls the educational appointee forward by setting positive examples
Intern	One who is under the care and supervision of an experienced, influential and prominent person who will further the educational appointee's education and professional development (e.g., fellow, intern, student, limited term employee, visiting collaborator)
Transition Mentoring	A process of acclimating new employees into the workplace as quickly and efficiently as possible through a mentoring relationship to improve productive and success.

My mentor included me in department meetings. I felt like a real member of his research team. (2010 educational appointee)

Benefits of Mentoring to the Mentor

- Sense of pride when the educational appointee does well
- Personal satisfaction in teaching
- Satisfaction that educational appointee will benefit from the mentor's mistakes
- Feeling of continuity of mentor's own work
- Recognition in the scientific community as an "outstanding" mentor
- Sense of worth due to contribution to organization
- Exposure to new ideas, technologies, perspective through interaction with the educational appointee
- Improvement of coaching and counseling skills
- Personal growth gained from exchanges with a diverse group of people

Mentoring Process

Mentoring is a shared relationship in which both the mentor and educational appointee benefits. For the educational appointee, the relationship is developmental; for the mentor the relationship creates opportunities for growth and success of the educational appointee:

The Educational Appointee:	The Mentor:
Learns strategies on how to function and succeed in the workplace	Clarifies the educational appointees roles, responsibilities and expectations
Becomes aware of career and professional opportunities	Sense of pride in seeing others learn and focus/accomplish goals
Receives guidance in dealing with problem situations	Evaluates and acknowledges the educational appointees potential
Gains a sounding board for exploring career/educational/professional options	Provides guidance and answers questions
Gains a valuable friend and confidant	Coaching and acknowledges to the educational appointee that "he/she can do it"

Goals of Mentoring

Goals of the mentoring process vary, depending upon the level and experience of the educational appointee. However, goals should help a new person to the organization learn about the following:

- The politics of the organization
- The norms, standards, values, ideology, history and heroes/heroines in the organization.

- The skills and competencies necessary to fulfill career goals and aspirations.
- The path to advancement and the blind spots.
- The acceptable methods for gaining visibility in the organization
- The characteristic stumbling blocks in the organization and the personal failure patterns.

Commitment

We recommend the following guidelines regarding how much commitment someone choosing to be a mentor should make:

- An established number of hours per week to spend with the educational appointee reviewing projects, providing feedback and guidance and answering questions. The exact number will depend on the time the mentor has to commit and the needs of the educational appointee.
- Demonstrated patience, support, respect, understanding, encouragement, and willingness on the part of mentors to share a personalized part of themselves (education, career experiences, etc.) with the educational appointee.
- Review established expectations and work plan for the educational appointee within five days of the educational appointee's start date.
- Provide assistance with the educational appointee's program and/or job requirements (writing papers, preparing poster board, introduction to technical library, etc.)
- Have a network of other staff members the educational appointee can go to in your absence.

Mentor Expectations

As a professional mentor, it is extremely important to set and communicate expectations for your educational appointee. Establishing and communicating these expectations, along with ground rules for how the educational appointee should operate, will help to ensure a successful experience. It will help the mentoring relationship to define itself and will provide clarity in establishing goals for both yourself and your educational appointee.

These expectations can evolve around the type of work to be accomplished by the educational appointee, as well as what and how the communication will take place. Once your educational appointee arrives, you will need to discuss the expectations that you have, as well as those of your educational appointee. As the mentor relationships and dialog grows, the relationships will change, and most likely, so will the expectations.

A mentor:

- Shares professional and personal knowledge in terms of skills, knowledge and resources.
- Completes the Education and Development Plan
- Completes (or thinks about) the Mentor Profile and Expectation Work plan
- Communicates to the educational appointee related work rules, guidelines and expectations (i.e., work schedule, work hours, dress code, safety, ETR, absences, training requirements, etc.)
- Provides guidance and feedback regularly
- Addresses important Safety issues related to the work group and job.
- Discusses the preferred way of communicating (i.e., e-mail, formal meetings, informal meetings, phone call, etc.)
- Invites the educational appointee to meetings as a development experience
- Addresses confidentiality issues
- Discusses work/projects expectations, progress and results (these should be tied to skills and projects the educational appointee is working on).
- Encourages the educational appointee to provide input on his/her expectations for the mentoring/learning relationships. This will help create a mutually positive and productive working relationship and environment for both of you.

My mentor treated me like a colleague –it was exciting....

My mentor gave me balanced feedback regularly. I really learned from that.

My mentor gave me work that was challenging, interesting and applicable to my field of study.

My mentor was a kind, down-to-earth kind of person. I could voice my concerns, and she always lent an open ear.

My mentor was great about making me feel a part of the team – What an experience!

Part II

Preparing for Arrival of the Educational Appointee

Educational appointees will receive their first impression of what their experience is going to be like, based on how they are treated the day they arrive. Therefore, setting the foundation for an organized, thoughtful arrival and orientation is integral to a successful experience for the intern and the mentor.

You can prepare for the educational appointee's arrival by:

- Makes sure he/she has designated workspace, materials and equipment
- Provides a job description (Education/Development Work Plan)
- Provides performance criteria (Education/Development Work Plan)
- Overviewing of the Laboratory's expectations (relevant policies, etc.)
- Introducing the educational appointee to the work group/team
- Inquiring about their housing (are they settled, do they need help, etc.)
- Answering questions about their stipend, travel arrangements, etc.
- Introducing them to other educational appointees if appropriate
- Assigning them a "buddy" to help them get around the Laboratory
- Reading up on "coaching" skills

Establishing Educational Appointee Expectations

Expectations serve as the foundation for measuring and evaluating whether or not the mentoring experience for you and your educational appointee was successful. We recommend that you complete the "Mentor Profile & Expectation Worksheet" and ask the educational appointee to complete the Educational Appointee Profile and Expectation Worksheet and return it to you. This will enable you to adapt the educational appointee's work plan to meet mutual needs and expectations. The educational appointee's work plan should then be completed, reviewed and discussed on an on-going basis, so that changes and updates can be discussed and documented on the plan. These worksheets are located in Part III of the tool kit.

Building the Mentoring Relationship

It is important to maintain a positive momentum with this relationship. Schedule meetings and activities in advance so that a proactive schedule and commitment to the relationships can take place. If you are unable to meet with your intern for a length of time, communicate this to your educational appointee so they don't feel forgotten, or feel that the relationship has been dissolved. If you end up having to travel extensively, or work away from the site, designate an "alternate" to help guide the educational appointee, and encourage the educational appointee to take issues, problems or questions to the delegate.

A mentor:

- Treats the educational appointee appointment as a professional and team member
- Actively listens and is open to different perspectives
- Provides time to meet with the educational appointee
- Provides quality, timely feedback on strengths and development areas
- Treats conversations with confidentiality
- Demonstrates positive role modeling
- Practices good coaching skills
- Is prepared for the educational appointees arrival to begin their internship.

Communication

Communication is the essential key to a successful mentoring relationship and experience. It is important to establish a positive, and relaxed rapport with your educational appointee. You can start this by getting to know him or her and share professional experiences of your own.

Always keep communication regular and on going. Avoid letting long periods of time (more than several days) go without having had some contact with the educational appointee – even if just to ask how things are going. Reinforce that he or she should never hesitate to ask you questions, or let you know specific needs.

Communicate-Communicate-Communicate!!

Giving Constructive Feedback

Giving specific, quick and constructive feedback is an essential part of the mentor's responsibilities. If mentors don't give good feedback, or don't give any feedback, a number of potentially negative consequences can occur:

- Educational appointee becomes anxious and uncertain
- Work quality is diminished
- Recurrent mistakes or incorrect focus
- Turnaround time can be longer
- Mentor loses credibility
- Educational appointees miss out on learning opportunities

According to research (Tulgan, 1999), there are four elements educational appointees most often ascribe to feedback from the "best" mentor they ever had. These are also the four elements educational appointees most often say they need but don't get in the feedback from most mentors. We recommend using a "FAST" feedback process that is **Frequent, Accurate, Specific** and **Timely**:

Frequent	Some appointees need feedback more often than others – each one has a unique “feedback frequency.” Giving educational appointees feedback at their individual rates of needs is the first key behavior of the best coaching style mentors. Identifying and tuning in to each educational appointees frequency is the corresponding skill of this behavior.
Accurate	Every instance of feedback has an effect on the educational appointee’s trust and performance. Giving feedback that is correct, balanced, and appropriate is the second key behavior of effective coaching-style mentors. Its corresponding skills include taking the time to reflect question assumptions, check facts, and rehearse the feedback’s delivery.
Specific	Telling people exactly what they do right and wrong is not specific enough –you must also tell people exactly what next steps are necessary to achieve the best results. This is the third key behavior in giving feedback, with setting concrete goals and deadlines, and providing clear guidelines, as the corresponding skills.
Timely	The closer in time feedback follows the performance issue, the more impact the feedback will have on the employee, and the better the chances that any needed improvements will be made. Giving feedback immediately is thus the fourth key behavior of good coaching-style mentors. Effective time management is it’s corresponding skills.

Difficulties or Terminating A Mentoring Experience/Relationship.

If either the mentor or intern cannot meet the goals and objectives of the mentoring program and/or relationship, discuss the concerns or issues with your program administrator. There may be reasonable options and solutions such as changing mentors, or reestablishing expectations.



Exit Process

As the mentor, you and the educational appointee can benefit from exchanging information about the mentoring experience. Conducting an exit interview with your appointees provides you the opportunity to gather information about the internship experience from their perspective and use it to enhance and improve future experiences for other appointees.

The exit process is an opportunity for your appointee to learn how you assessed his/her performance, and the possibility for future employment. If you feel you don't have time to do this, you can ask the program administrator to conduct the process. Below is a sample checklist of information to cover.

Checklist:

Project/Final Report/Assignment

- Final Project – abstract, poster and paper, if written
- Results from the research conducted
- Information that may still be missing
- Opinion/advice for project completion, where applicable.

Miscellaneous

- Complete all assignments
- Return all equipment
- Correct forwarding addresses

Positive/Negative experiences:

- Interaction with other employees
- Credibility acknowledge
- Working conditions
- Professional experience.

Evaluation of the job assignment

- Orientation to the assignment
- Meaningfulness of assigned tasks
- Adequacy of coaching and guidance by mentor

Career development

- Improving technical skills and knowledge about their field
- Assistance in creating plans for future educational goals
- Broadening awareness of career options in their discipline
- Gaining insight into the methods and problems of management

One of the main objectives of the educational appointments is hopefully to attract the “start” for eventual full time employment with the company. This final process

can help mentors make the decision as to whether or not to recommend their appointees for other programs, or regular full-time employment in their field of interest.

Part III

This section of the tool kit provides tools and information for you to use to enhance the mentoring experience.

Mentor Profile & Expectation Worksheet

(This should be completed by the mentor and shared with the educational appointee)

Name:		MS:	
Email:		Work Loc	
Group:		Job Class	
Phone:		Job Title	
Fax:		Work Schedule	

Educational appointee Job Information:

Educational appointee Name:

Appointee Job Title:

List the educational appointee's assigned projects:

Identify the technical skills and experience need to perform roles and responsibilities:

Mentor Expectations:

The reasons I am a mentor are:

I want my educational appointee and I to:

My educational appointee and I will discuss: *(communication ground rules):*

Educational Appointee Profile & Expectation Worksheet

(This should be completed by the educational appointee and shared with the mentor)

Educational Appointee Profile

Name		MS	
Email		Work Loc	
Group			
Phone			
Fax		Work Schedule	

Technical Skills and Experience:

Education:

Major Area of study:

Educational appointee Expectations:

My career goals are:

What I hope to gain from my experience at BNL is:

The reasons I need a mentor are:

Education & Development Work Plan

*(This plan should be completed by the mentor and shared with the educational appointee.
Educational appointee Profiles and Expectations worksheet should be considered before completing
this plan)*

Educational appointee Name:	
Program type:	
School Attending:	
Mentor Name:	
Mentor Telephone & Email:	
Group:	
Division:	
Mail Stop:	
Start Date:	

Description of work assignment *(provide a clearly defined work assignment for your educational appointee, including jobs responsibilities, expectations, training and education components):*

Goals/Expectations:

Critical Skills Areas: *(research, statistics, report writing, computer, presentations, etc.)*

Progress Reviews:

Discussion Planner

(Use this form to help you plan for a development or performance discussion with your appointee)

Objective of Discussion:

Step	What Will You Say?
Open <i>Explain the purpose of the discussion</i> <i>Keep discussion open and positive</i>	
Clarify <i>Encourage the appointee to gather data and think about his/her development needs</i>	
Develop <i>Encourage the appointee to talk about their strengths, and areas they would like to develop</i>	
Agree <i>Determine you and the appointee agree on actions for development</i>	
Close <i>Summarize important points of the discussion</i> <i>Set a follow-up date</i>	

New Intern Quick Checklist

ADVISOR/MENTOR: complete this section

Work expectations

Intern's expected regular work hours/days:
Can the intern work flexible hours? If so, what are the restrictions?
Who should the intern report to regularly?
If this person is not available, who should the intern report to?
Who, other than the advisor, will the intern work with regularly?
Who should the intern call if he/she cannot come in to work?
What is appropriate attire for the intern during normal work conditions?

Tasks

What regular tasks will the intern be working on?
What other tasks can the intern work up to?
What can the intern expect to get out of the internship experience?
Will the intern attend staff/business meetings? How often?
Will the intern attend technical seminars? How often?

Infrastructure

Will the intern have a computer for his/her use?
Will the intern have an email account?
Will the intern have voice mail on his/her phone?
Will the intern use company vehicles?
Will the intern be issued building keys or have other after hours building access?

INTERN: complete this section

What do you expect to gain from your appointment?
How much interaction with your mentor do you feel is reasonable?
How often would you like feedback from your advisor on how you are progressing?

GENERAL DISCUSSION TOPICS

Topic	Initial Completed
Job-specific safety rules	
Location of washrooms, restrooms, lunch room, supply room, etc.	
Road conditions emergency phone number and use	
Rules, restrictions on use of email, Internet, long distance phone, etc.	
Building emergency procedures, alarms, fire alarm staging area, etc.	
Resources available for help, including technology Help Desk, etc.	
Intern's Mail Stop, phone number, building name, office locations, etc.	

Advisor Signature and Date

Advisors should be regularly available to the intern, or have provisions in place for the intern to receive guidance from another staff member.

Intern Signature and Date

You are expected to maintain a professional attitude and abide by the rules and the guidance of your advisor.
