

INDIVIDUAL DEVELOPMENT PLAN

Purdue College of Engineering
Weldon School of Biomedical Engineering

YEAR **2**

[based off of Purdue College of Science (COS) IDPs]

STUDENT NAME

ADVISOR NAME

DATE

Setting goals and taking stock of whether you have accomplished those goals is crucial to being productive, not just busy. Guided by your Individual Development Plan (IDP), formal meetings with your advisor (and committee) are a chance for you to step back from your daily lab work, assess your progress, and plan for the future. Your advisor and mentors are invaluable resources to help you propose and execute the next steps that will help make you a better engineer/scientist.

At the start of your second year (as you are wrapping up your qualifying literature assessment and starting to work towards your prelims), you need to take time to assess where you are with regard to your training and career-path goals. Based on your experiences in year 1, this phase of the IDP is designed to help you with this process and set your goals for the coming year. Share and discuss this plan with your advisor and committee, and integrate their feedback. At the close of the process, you will have generated an action plan that will guide your training as you progress in the program.

Refer to the COS IDP steps (<https://www.science.purdue.edu/graduate/idp.html>), which are abbreviated in the box below. In addition, the portal provides a list of the student's and advisor's responsibilities when it comes to designing a training plan. Make sure that you and your advisor review those responsibilities as they will be important to the success of the student-advisor relationship.

IDP Steps Reminder

1 Step back and self-assess!



2 Set your first meeting with your advisor.

3 Lead the discussion. *Take ownership of your PhD training!*

4 Obtain your advisor's feedback and signature on your IDP.

5 Complete the "Action Plan" (page 1.7) and submit a signed copy to the BME Graduate Office.

"This process sparks much needed conversations between trainees and their mentors regarding career goals, skills and interests. This kind of communication is imperative."

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SCIENTIFIC ● RESEARCH GOALS AND OBJECTIVES

1. What specific question is your dissertation intended to answer? How familiar are you with the academic literature related to this topic?

2. Do you have a good grasp of how this project fits into your lab/field as a whole?

3. How do you feel your project is progressing?

4. What are your near-term research goals? For each goal, specify any areas where you feel you need help or additional training (e.g., the need to learn high-throughput sequencing). Include the need for scientific collaborations, if relevant.

CHALLENGES

1. Describe any unusual or unanticipated challenges you experienced in this first year.

2. What actions have you taken to meet these challenges?

3. How can your advisor help you?

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TRAINING • MENTORING

1. What requirements of your graduate program do you still need to complete, and what is your plan to fulfill them?
2. What fellowships are you applying for? Have you been able to get the guidance you need to apply for these awards?
3. What are your primary goals in your academic training?
4. What resources or support will most help you to succeed in graduate school? Mention any technical training you may need.
5. What actions can be taken to make sure the needs outlined in # 4. are met?
6. What is important to you in a mentoring relationship?
7. Are there any factors that you are concerned may negatively affect your progress?
8. What help can your advisor or other faculty/staff provide regarding professional development and graduate training?
9. Your success as a student will be linked to your overall wellness. What are you doing to tend to this?

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For the following areas, list your recent involvement in the past year and/or current plans you have for participating in these areas.

ACADEMIC COURSEWORK/TRAINING:

TEACHING/MENTORING:

PROFESSIONAL DEVELOPMENT:

CONFERENCES:

SERVICE/OUTREACH:

List (as percentages of time) your recent involvement in the past year and/or current plans you have for the following areas:

<i>Research</i>	<i>Courses/Training</i>	<i>Teaching</i>	<i>Professional</i>	<i>Service</i>	<i>Wellness</i>
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Do you see these percentages changing in the coming year? If so, in what way?

Which experiences have been most valuable to you, your research, and/or your professional goals?

Many students find it useful to participate in additional training, teaching, journal clubs, conferences, outreach, and other activities. Do you need any help finding and identifying opportunities that are right for you?

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One of the most important parts of your PhD training is to develop a skill set transferrable beyond graduation. As in past years, use this worksheet to assess and identify skills that you would like to target in the coming year, marking your current ability level from weak (1) to strong (3) relative to where you think a student should be at the end of their PhD studies. Ask your advisor how s/he agrees or disagrees. Spaces have been provided after each section to allow you and your advisor to add any additional skill targets. An honest self-assessment and discussion will help you set your training goals.

RESEARCH SKILLS & SCIENTIFIC THINKING

	1 (weak)	2 (aver.)	3 (strong)	Target skill
Broad-based knowledge of science				<input type="checkbox"/>
Critical reading of scientific literature				<input type="checkbox"/>
Experimental design				<input type="checkbox"/>
Interpretation of data				<input type="checkbox"/>
Statistical analysis				<input type="checkbox"/>
Creativity and innovative thinking				<input type="checkbox"/>
				<input type="checkbox"/>

LEADERSHIP/ PERSONNEL MANAGEMENT

	1 (weak)	2 (aver.)	3 (strong)	Target skill
Delegating; providing instruction				<input type="checkbox"/>
Providing constructive feedback				<input type="checkbox"/>
Dealing with conflict				<input type="checkbox"/>
Leading and motivating others				<input type="checkbox"/>
Serving as a role model				<input type="checkbox"/>
Setting expectations				<input type="checkbox"/>
				<input type="checkbox"/>

WRITING

	1 (weak)	2 (aver.)	3 (strong)	Target skill
For a scientific publication				<input type="checkbox"/>
For a research proposal				<input type="checkbox"/>
For a lay audience				<input type="checkbox"/>
Grammar/structure				<input type="checkbox"/>
Editing your own writing				<input type="checkbox"/>
				<input type="checkbox"/>

PROFESSIONALISM

	1 (weak)	2 (aver.)	3 (strong)	Target skill
Identifying and seeking advice				<input type="checkbox"/>
Upholding commitments/deadlines				<input type="checkbox"/>
Maintaining positive relationships				<input type="checkbox"/>
Approaching difficult conversations				<input type="checkbox"/>
				<input type="checkbox"/>

ORAL COMMUNICATIONS

	1 (weak)	2 (aver.)	3 (strong)	Target skill
To a specialized audience				<input type="checkbox"/>
To a lay audience				<input type="checkbox"/>
In a classroom				<input type="checkbox"/>
One-on-one				<input type="checkbox"/>
English fluency				<input type="checkbox"/>
				<input type="checkbox"/>

PROJECT MANAGEMENT

	1 (weak)	2 (aver.)	3 (strong)	Target skill
Planning projects				<input type="checkbox"/>
Breaking down complex tasks				<input type="checkbox"/>
Time management				<input type="checkbox"/>
Managing data and resources				<input type="checkbox"/>
Record keeping: electronic and hand-written files				<input type="checkbox"/>
				<input type="checkbox"/>

What are the top one or two skills that you plan to focus on for the next year?

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Mentoring is a distributive process. List the people whose talents and experiences you are working with (or hope to) to assist you in your training. As you progress forward in your training program, your mentoring committee may change, but it is important to always be working with a mentoring committee to receive broad input throughout your program. This IDP can serve as an impetus for conversations with each of your mentors, not just your advisor. Revise your mentoring network as needed using the table below.

	How often are you meeting?	Is this sufficient?	Do you initiate meetings?	Need help with your mentoring?
Lead mentor				
Thesis committee: as a group (List names)				
Thesis committee: one-on-one Additional mentors (List names)				
Collaborators (List names/ roles in your research)				

What have you found most beneficial about the mentoring you have received?
Is there anything that would improve the mentoring you receive?

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PROFESSIONAL AND PERSONAL DEVELOPMENT

What are your long-term goals of your professional career? (i.e., what do you want to be doing on a daily basis 5-10 years after you graduate?)

What professional and/or other factors have influenced these goals?

For each goal you listed above, identify one or two shorter-term goals that may be important to achieving the larger objective. Indicate how you intend to meet these goals next year.

What guidance would help you with your development and exploration of career options?

Do you want to be involved in more collaborative work, or do you need more time to focus on your own research?

Are there any factors that you feel may negatively affect your progress?

What help can your advisor or other faculty/staff provide?
Indicate here if you need help finding professional or personal development resources.

Your success as a student is linked to your wellness. What are you doing to maintain this?

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THIS ACTION PLAN IS TO BE DEVELOPED JOINTLY BY THE GRADUATE STUDENT AND THE MENTOR/COMMITTEE DURING OR AFTER YOUR DISCUSSIONS. Keep it accessible for your yearly IDP meeting and potential monthly check-ins, as determined by you and your advisor. Please, remember the requirement (for spring registration) to submit a signed copy to the BME Graduate Office by the end of Oct.

Communication

1

What is the best way to set meetings and communicate regularly with your mentor / committee?

Target skills

2

What skills (~1-2) did you identify as important development targets for the coming year?

Coursework and Activities (e.g., Seminars, Journal Clubs, Conferences, ...)

3

List any activities in which you and your advisor/committee agree you should participate to achieve your academic objectives in the coming year. Include courses you must complete.

Financial support

4

If you know, what will be your financial support for the next year?

Additional actions

5

In order to aid your success, are there any additional actions that can be initiated or continued by you? By your advisor? By your committee?

Following up

6

How often do you and your advisor plan to meet? How often will you have committee meetings?

Other

7

Is there anything else you and your advisor and/or committee discussed?
