

INDIVIDUAL DEVELOPMENT PLAN

Purdue College of Engineering
Weldon School of Biomedical Engineering

YEARS **3+**

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

STUDENT NAME

ADVISOR NAME

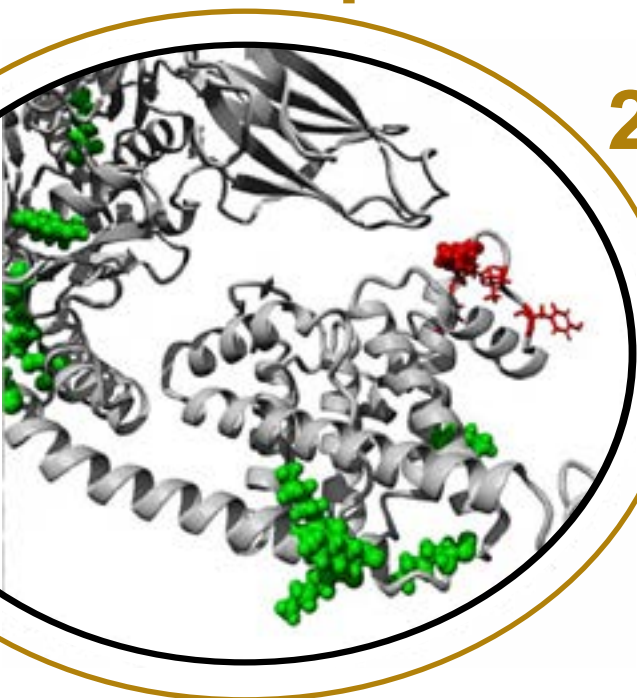
DATE

Your IDP for Years 3 and onward should be completed at the start of each of these years with your research advisor and mentoring committee. By this point in the program, you should have selected a thesis topic and completed (or nearly) your prelims and hopefully one or more publications. You have begun to accumulate data on your dissertation project and have likely finished the bulk of your formal class work. Your IDP at this stage (Years 3+) should be focused on how best to manage the data coming from your experiments, designing not only a plan for completing the experiments you have proposed, but also for formulating new questions based on the results you obtain. Professional development in terms of how to package your results for publication and presenting your work at local, regional, and national meetings should be a high priority. It is not uncommon for the goals/aims of a thesis project to change as you accumulate data; science is all about generating new information and revising hypotheses based on that information. Continued regular communication with your advisor, the members of your thesis committee, and other graduate students will allow you to develop the mental flexibility that is essential to thinking creatively about your work. You should complete your IDP annually, just as you did for years 1 and 2. Thus, now it is time to decide how you want years 3-5 to progress. This will help you set milestones for yourself and complete your research and training goals in a timely manner.

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).

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SCIENTIFIC ● RESEARCH GOALS AND OBJECTIVES

1. Do you have a clear/defined plan and endpoint for your project?
2. How confident are you in your ability to complete your project in a timely manner (defined by your committee)?
3. How firm a grasp do you feel you have of the field in which you work?

- **If insufficient**, what help do you need identifying relevant readings or other means to be a true expert in your field?
4. What are your near-term research goals? For each goal, specify any areas where you feel you need help or additional training. Include the need for scientific collaborations, if relevant.
5. What are your target dates for publishing your work?

CHALLENGES

1. Describe any unusual or unanticipated challenges you experienced in the past 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? Are they being achieved?

4. Are there additional resources or support you need 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. How is/are your mentoring relationship/s? Can improvements be made?

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 towards finishing your dissertation, 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. Keep it accessible for your yearly IDP meetings and potential monthly check-ins, as determined by you and your advisor. Please, remember to submit a signed copy to the BME Graduate Office by the end of October. This is a requirement to be able to register for the next semester.

Projected Timeline

1

What is the projected timeline for completing your current projects and publishing your work? When do you expect to graduate? What are you planning to do after graduation?

2

Target skills

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

3

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

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.

4

Financial support

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

5

Additional actions

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?

6

Following up

When are you and your advisor/committee going to follow up on your IDP and progress?

7

Goals

What are the tasks and deliverables in the coming spring, summer and fall semester to get a satisfactory grade for research credits?

Signature of Student

Signature of Advisor