

2025 S-STEM Scholars Meeting, Oct 2, 2025 - Oct 4, 2025
San Diego, CA

Individual Development Planning - transforming it from an activity to lifelong habit

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SDSU

Welcome to San Diego!

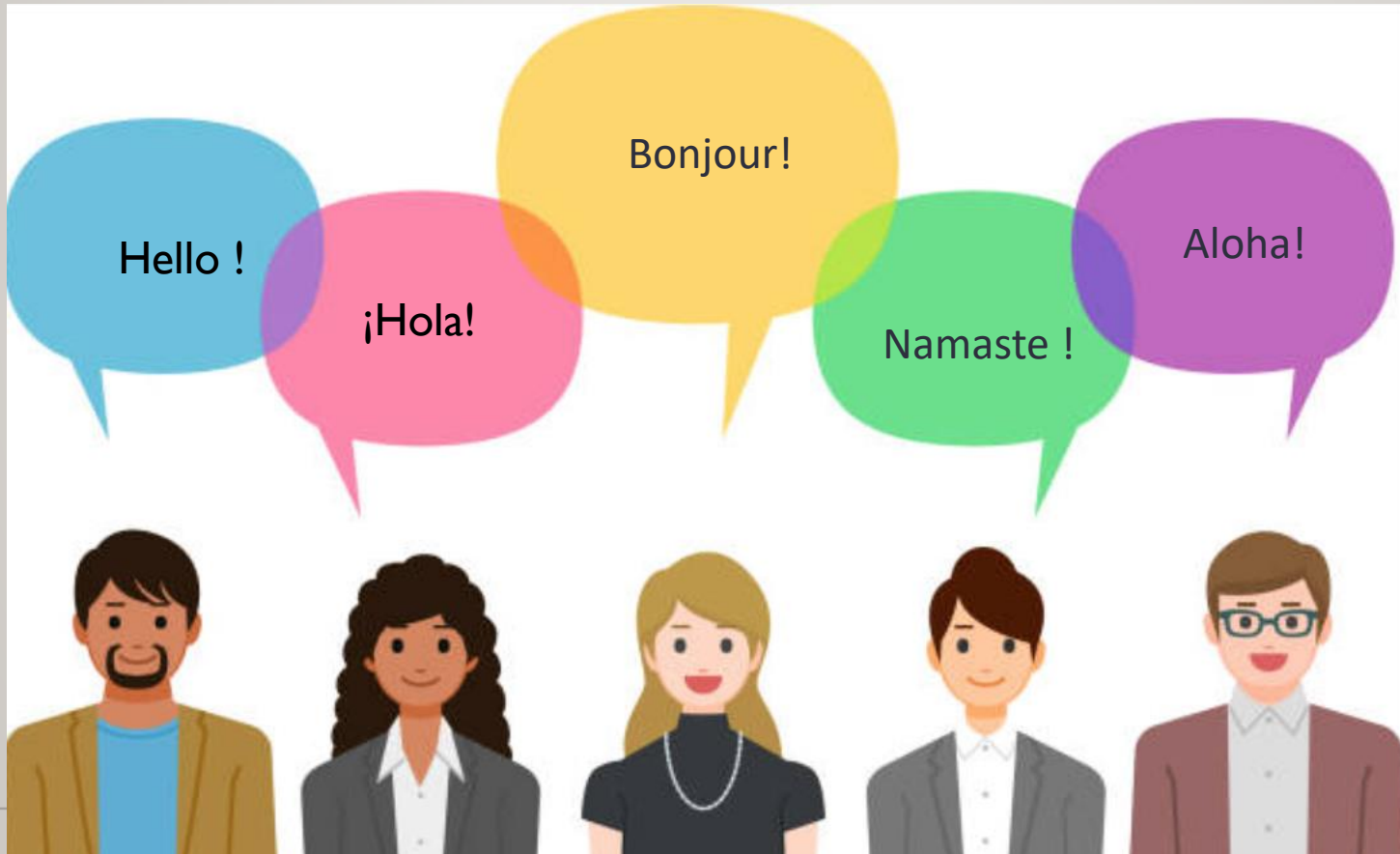


Objectives

- Introduce **what is an Individual Development Plan (IDP)**
- Understand **why do we need** an Individual Development Plan (IDP).
- Discuss how we can **create and foster an active IDP**
- Explore what does it take to **make it a habit** and why does it help

**How to map your future career journey
and measure the progress you are making
towards your goals!**

INTRODUCTIONS



About us...

Dr. Dustin Thoman (he/him)

Professor of Psychology
San Diego State University

Education

Ph.D. in Social Psychology

University of Utah

M.S. in Social Psychology

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B.S. in Psychology

Middle Tennessee State University



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Research Interests

- Motivation
- Social identity
- Self-regulation
- Career interest development
- Improving STEM education
- Mentorship

About us...

Dr. Satchi Venkataraman (he/him)

Professor of Aerospace Engineering
San Diego State University

Education

Ph.D. in Engineering Mechanics
University of Florida

M.S. in Mechanical Engineering
Clemson University

B.S. in Mechanical Engineering
Anna University, Chennai, India



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Research Interests

- Aerospace Structures
- Composite Materials
- Structural Optimization
- Failure Prediction in Composite Materials
- Design for Uncertainty
- Biomimetic Design

Agenda for our workshop today

How to create and foster an individual development planning habit?

1. Visualizing your future
2. Identifying career goals and paths
3. Making S.M.A.R.T. plans
4. Steps for creating and updating your IDP
5. Assessing your progress
6. Embracing and learning from failures and setbacks
7. Embracing IDP as a habit
8. Wrap up questions and discussions

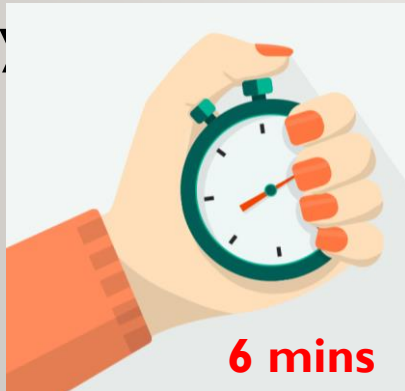
VISUALIZING YOUR FUTURE

- Writing a recommendation letter for yourself in the future
- Asking if all went as planned, where do you see yourself in 3 or 5 years?
- You are being introduced at an event in the future 10 years, what would that introduction say?



Activity # 1: Write a recommendation letter for yourself for a dream job/grad school application

- **Make a bullet list of things you'd want your recommendation letter to say about you (2 mins).**
- **Introduce yourself to your fellow scholars at your table (2 min)**
- **Compare and discuss your list with your peers around**



Activity # 1: Write a recommendation letter for yourself for a dream job/grad school application

- **Make a bullet list of things you'd want your recommendation letter to say about you (2 mins).**

- **Compare your list with a partner around you (2 mins)**

Welcome back!

What are some things you listed for your recommendation letter?

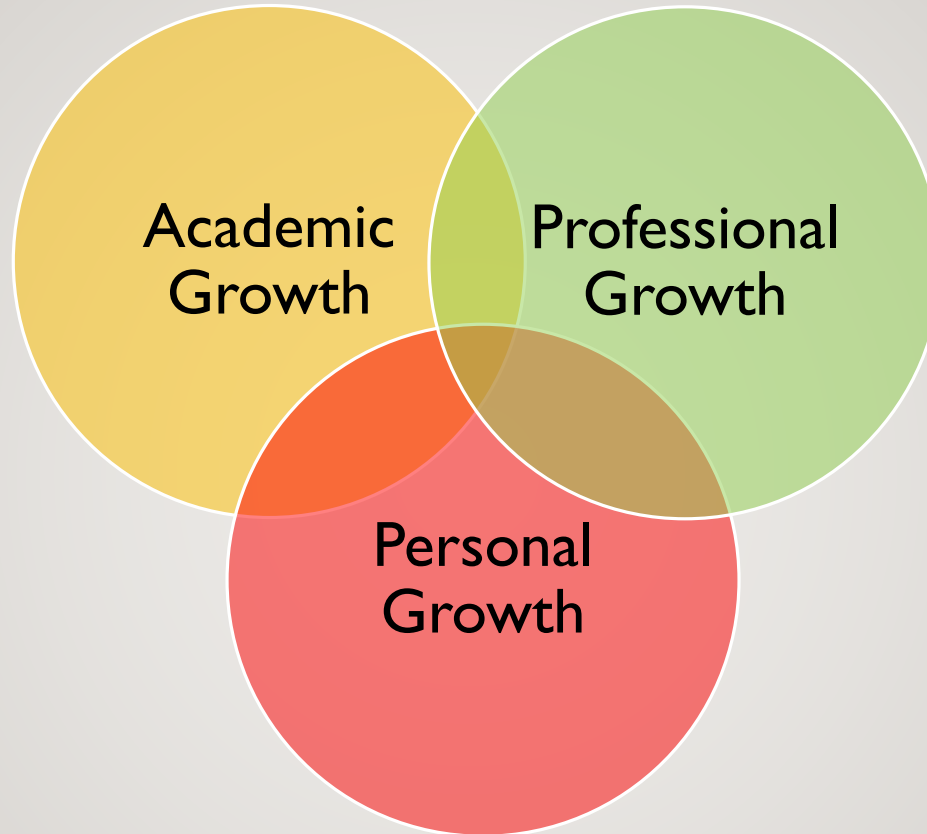
How can you categorize them?

Categories of things on recommendation letters



What to consider when making plans

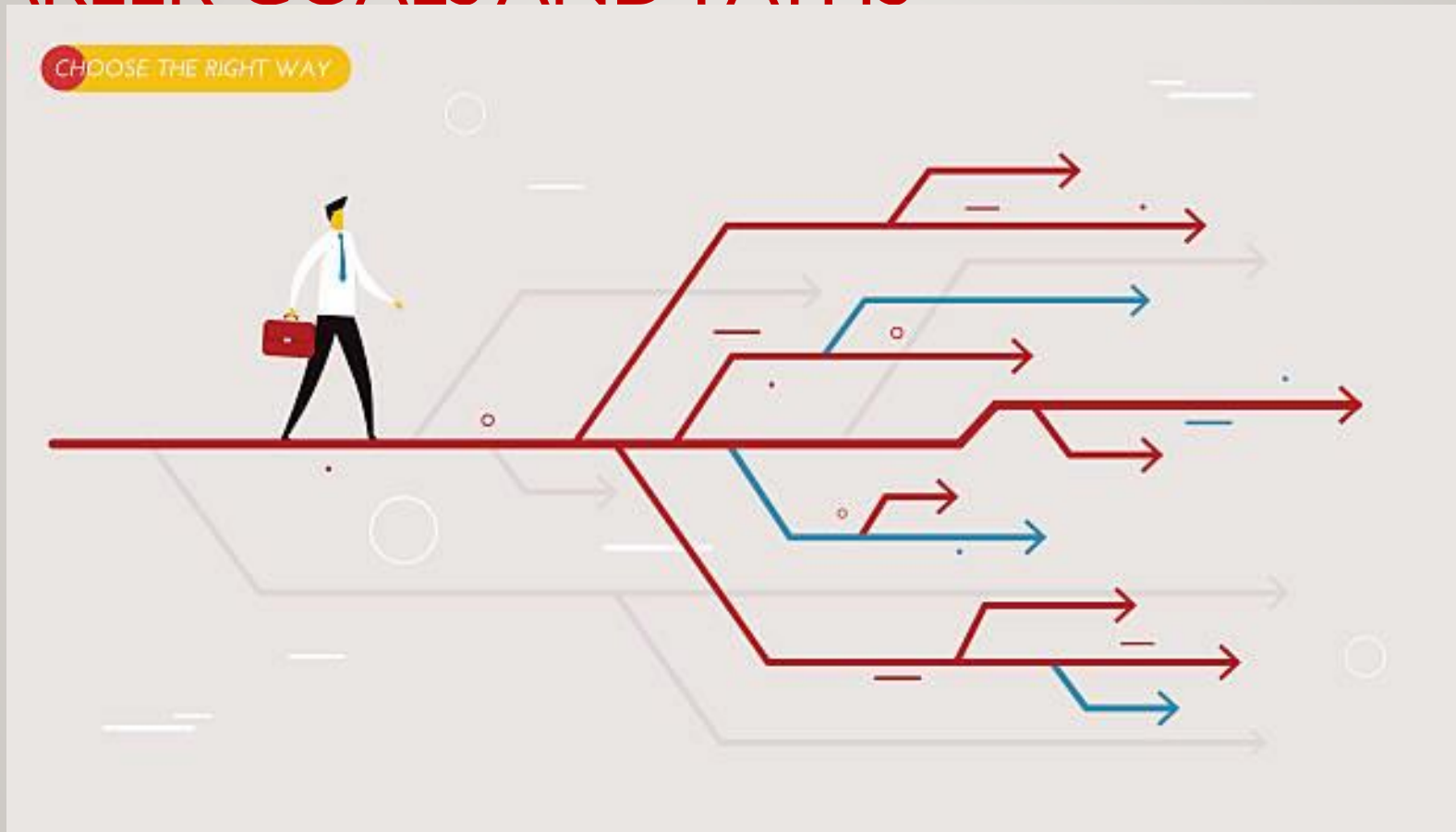
Things you need to do to earn your degree and demonstrate readiness for your next career step.



Develop skills that enable you to enter and thrive in your chosen professional careers.

Developing the knowledge needed to be a healthy happy person and a good citizen.

CAREER GOALS AND PATHS



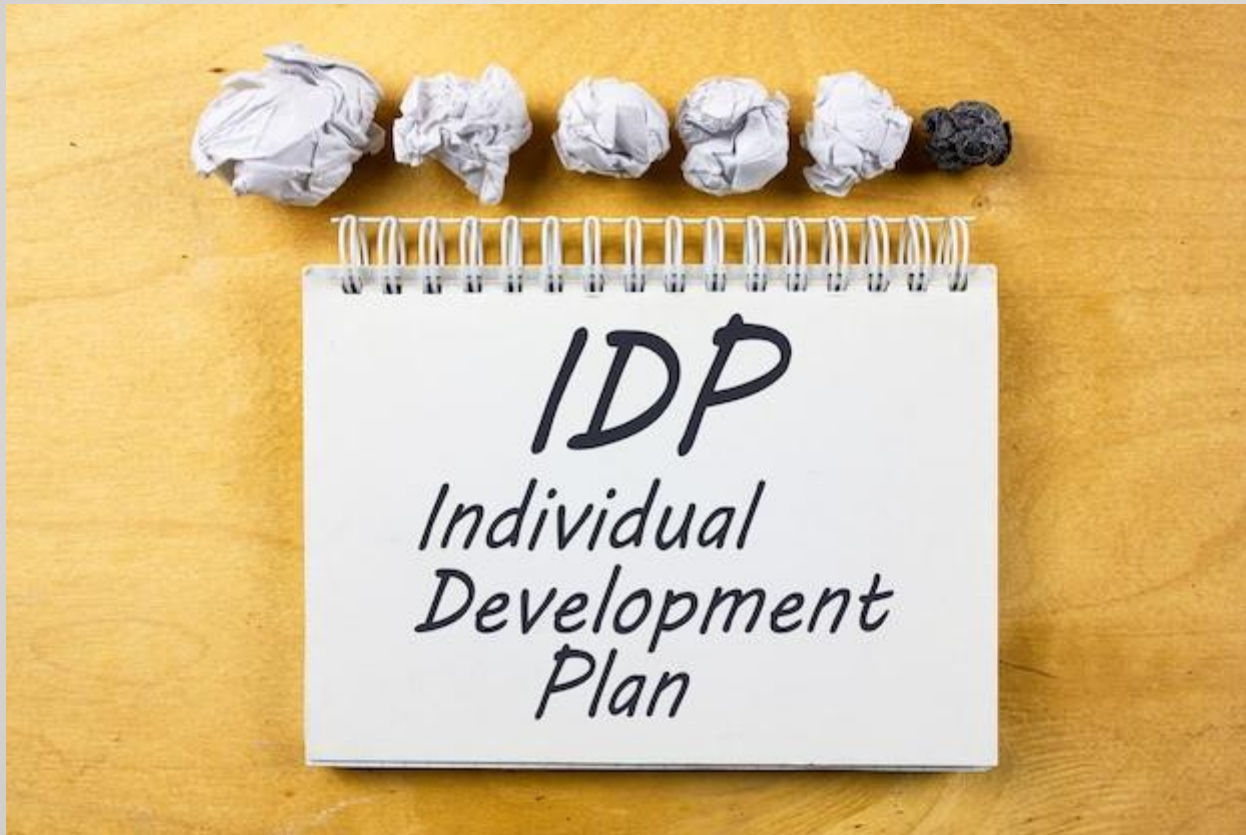
How do you find what is the “right” career for you?

- There is no such thing as a “right” career? Instead ask,
 - What would I enjoy doing?
 - What will give you a sense of purpose and satisfaction?
 - What matches with my interests, skills and aptitude?
- Network with people in your field and learn about jobs,
- Learn what gives people happiness, satisfaction and a sense of purpose
- Use internship experiences to see if you can identify where you will thrive path
- Continually assess where do you want to go/move towards and why?

How do you plan a path to achieve your career goals?

- Identify your long term goals
 - (these will change with time, that's OK)
- Break down that goals into smaller goals
 - 2 or 4 year → Yearly → Semester/Quarter → Month → Weekly
- Identify what activities/learning you will need to achieve your goals and the resources it will need
- Make a plan for how/when to pursue activities

CREATING YOUR INDIVIDUAL DEVELOPMENT PLAN (IDP)

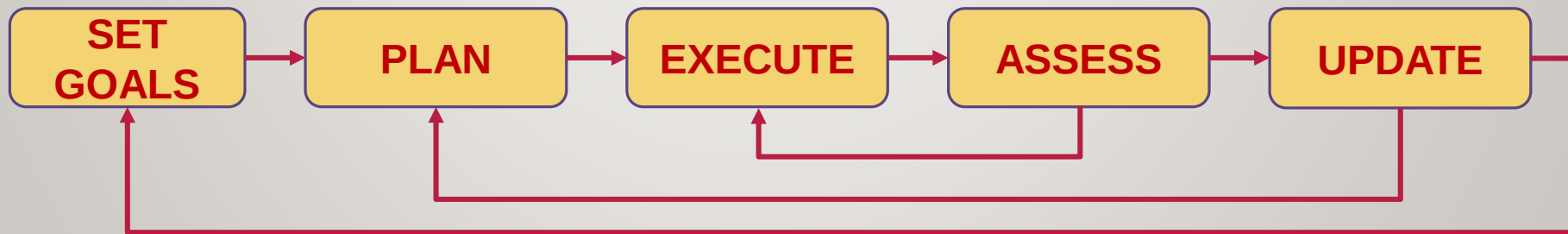


What is an Individual Development Plan (IDP) ?

- An Individual Development Plan (IDP) is a personalized, structured roadmap that outlines an individual's short-term and long-term career goals, identifies their strengths and areas for growth, and details the specific actions, skills, resources, and timelines needed to achieve them.

What is it?

- An **Individual Development Plan (IDP)** is a **personalized, structured roadmap** that outlines an individual's **short-term and long-term career goals**, identifies their strengths and areas for growth, and **details the specific actions, skills, resources, and timelines** needed to achieve them.

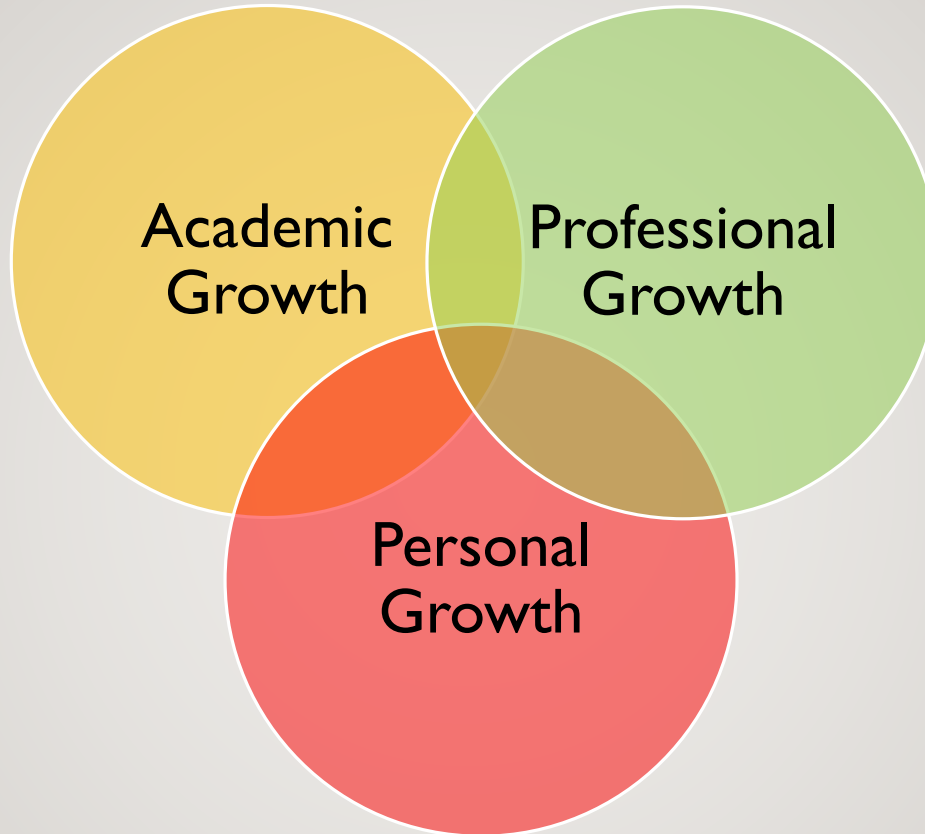


Steps for creating your IDP

- 1 • Assess your skills, values, and interests
 - Self-assessment tools – what do you need to learn, what are you good at, where do you need to develop further, what are things that are not clear
 - myIDP survey available for detailed values + interests assessment
- 2 • Create self-assessment summary and goal priority
 - Identify goals for the next year from assessment survey
- 3 • Discuss and develop plan with mentor
 - Create achievable set of goals in yearly action plan
 - Create mentoring plan for working with committee
- 4 • Implement action plan
 - Set and monitor progress on personal milestones for action plan goals
- 5 • Review and revise periodically 

What to consider when creating your IDP

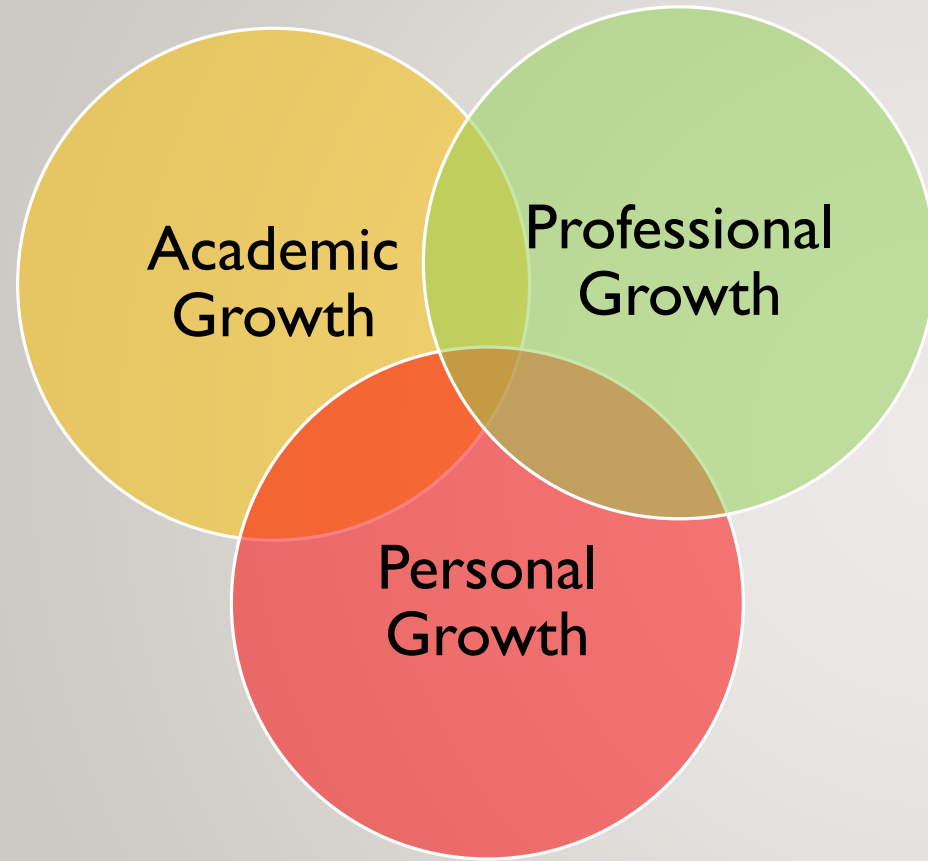
Things you need to do to earn your degree and demonstrate readiness for your next career step.



Develop skills that enable you to enter and thrive in your chosen professional careers.

Developing the knowledge needed to be a healthy happy person and a good citizen.

What to consider when creating your IDP



- **Academic Growth**

- Advancing in course work to meet graduation requirements
- Identifying areas for specialization or focus
- Developing ability to apply knowledge to problem solving
- Developing research skills and experience

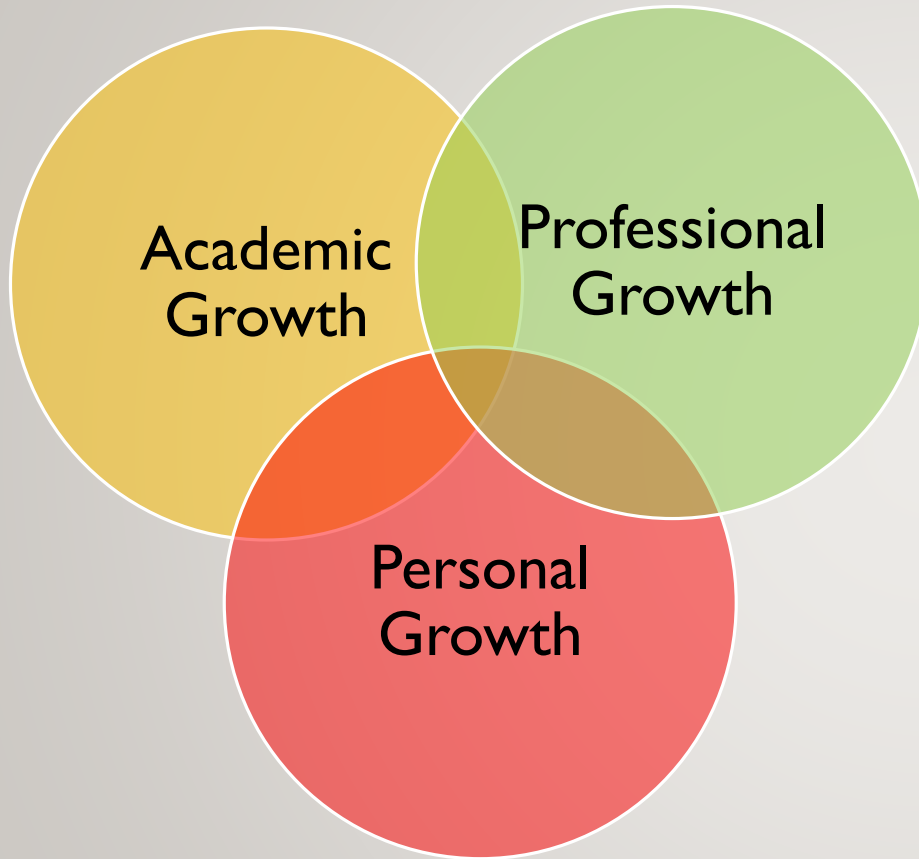
What to consider when creating your IDP



- **Professional Growth**

- Understanding career choices and career paths
- Improving communication skills – written and oral
- Networking and Branding
- Leadership Skills
- Time Management

What to consider when creating your IDP



- **Personal Growth**

- Practicing self care
- Good work and life balance
- Develop emotional intelligence
- Cultivate a growth mindset
- Strength relationships
- Find mentors and mentoring

Writing your I.D.P.

1. The IDP should be updated and changed as needed
2. Identify specific and achievable goals or skills.
See section on SMART GOALS
3. Determine what additional competencies/skills or activities/experiences may be needed to accomplish this goal
4. Specify how you will know if you are making progress to this goal
5. Determine who can support you in your pursuit of this goal
6. Determine the timeline for beginning work on this goal and completing the goal

Individual Development Plan – example template

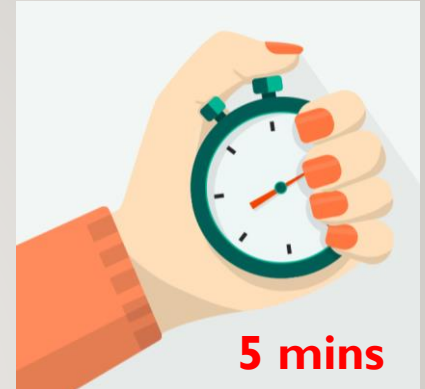
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>	<i>Column 6</i>	
GOALS	Competencies & Skills	Activities & Experiences	Assessment of Progress	Support People and Their Roles	Timeline	
					Begin	Complete
LONG-TERM 1.						
INTERMEDIATE-TERM 1. 2.						
SHORT-TERM 1. 2. 3.						
IMMEDIATE 1. 2. 3. 4.						

Academic timeline within which you fit your plan

Semester	YEAR I	Year II	Year III	Year IV
	Coursework	Coursework	<i>Coursework</i>	Coursework
FALL				
	Coursework	Coursework	Coursework	Coursework
SPRING				
	Coursework		Coursework	
SUMMER		Internship / Research	Internship / Research	Research

Activity #2: Build Your Mini-IDP

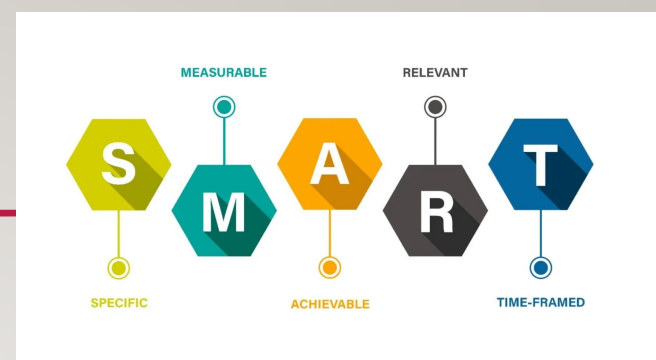
- 1. Write down (2 mins):
 1. One short-term goal (this semester/year)
 2. One long-term goal (3–5 years out)
 3. One skill you want to build
 4. One action step you can take in the next month
- 2. Pair up with a classmate and share your goals
- 3. Ask: What support/resources could help you succeed?



How do you know if the plan is good/reasonable?

- Open Discussion

S.M.A.R.T. Goals Framework



- **Specific** – Clear, well-defined, and focused.
Measurable – Trackable with indicators of progress.
Achievable – Realistic given resources and constraints.
Relevant – Aligned with broader objectives and priorities.
Time-Bound – Set within a defined timeframe.
- **Example (SMART Goal):**
"Complete a certified SolidWorks training course and pass the exam by the end of this semester to strengthen my design skills for aerospace engineering internships."

ASSESSING PROGRESS



Image source: <https://www.istockphoto.com/photos/career-path>

Self-Assessment: How to Check Your Progress

- Ask Yourself:
 1. Goals – Am I clear on what I want to achieve?
 2. Progress – What steps have I completed so far?
 3. Strengths – What am I doing well?
 4. Gaps – Where do I need to improve?
 5. Plan – What's my next step?
- **Tip:** Write it down → Reflect → Adjust → Act
- *Self-assessment isn't about judgment, it's about growth.*

Forming healthy habits for growth!

- Assessing and revising our plans is most effective when it becomes a habit
- Creating this habit is more important than sticking with any particular goal – it's okay (and normal) to change your plans
- Tips for creating healthy habits:
 -  Schedule it
 -  Recruit support
 -  Reward yourself for updating your IDP

Benefits of creating, updating an IDP continuously



Wrap up

- IDP is not a one time, one-and-done activity
- It is a skill to develop by repetition
- You will fail many times at it before you succeed – don't give up
- Even though it is “Individual” Development Plan, engage others:
 - Mentors faculty advisor, other teachers, alumni, senior students, peers)

“TO LEARN TO SUCCEED,
YOU MUST FIRST LEARN TO FAIL.”
~MICHAEL JORDAN

Wrap up

- Success in IDP is not creating a “perfect” plan
- Success in IDP is embracing it as a habit to continuously assess, plan and execute
- IDP can be a great way to develop a growth mindset



Thank you! Any questions?



We wish you a productive conference and fun stay!
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Acknowledgements



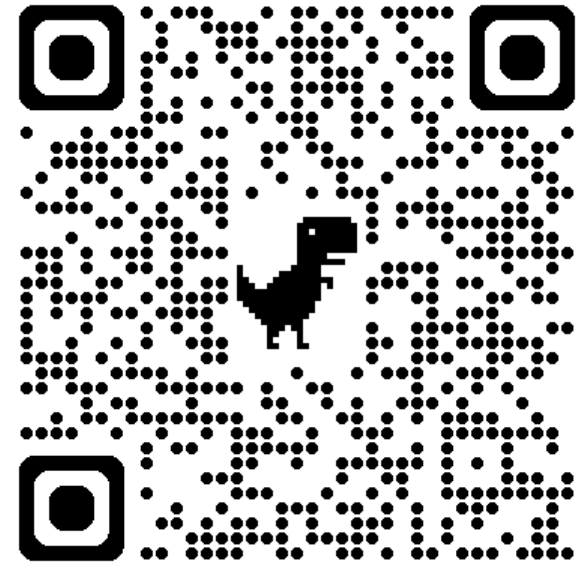
NSF S-STEM
Award #I930546

Provide Your Feedback on:

Individual Development Planning - transforming it from an activity to lifelong habit

Survey Link:

<https://airtable.com/appMqgBJxZT21jAQH/pagxTxPBqtlBliESM/form>



BACKUP SLIDES

Activity #2: List some goals you'd like to accomplish this academic year

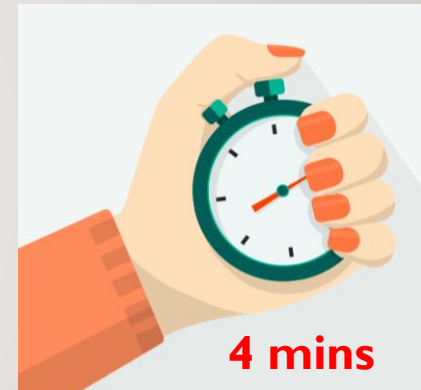
Take a few minutes to think and write down a few (3 to 4 at most) important goals you'd like to accomplish this year

Share this within your group

Discuss similarities & differences



Image source: <https://career-advising.ndsu.edu/blog/2023/01/13/how-to-set-better-goals/>



Activity #2: List some goals you'd like to accomplish this academic year

Take a few minutes to think and write down a few (3 to 5 at most) i ar

Share

What were some goals you set for yourself?

Discuss similarities & differences



Image source: <https://career-advising.ndsu.edu/blog/2023/01/13/how-to-set-better-goals/>

How do you know if the goals/plans are good/reasonable?

- Open Discussion

S.M.A.R.T. PLANS



S.M.A.R.T. Goals Framework

- **Specific** – Clear, well-defined, and focused.
Measurable – Trackable with indicators of progress.
Achievable – Realistic given resources and constraints.
Relevant – Aligned with broader objectives and priorities.
Time-Bound – Set within a defined timeframe.
- **Example (SMART Goal):**
"Complete a certified SolidWorks training course and pass the exam by the end of this semester to strengthen my design skills for aerospace engineering internships."

SPECIFIC GOALS

- A specific goal will usually answer the five "W" questions:
 1. **What: What do I want to accomplish?**
 2. **Why: Specific reasons, purpose or benefits of accomplishing the goal**
 3. **Who: Who is involved?**
 4. **Where: Identify a location**
 5. **When: Identify requirements and constraints, and a practical timeline for completion**

MEASURABLE GOALS

- A measurable goal will usually answer questions such as:
 1. How much?
 2. How many?
 3. How will I know when it is accomplished?

ATTAINABLE GOALS

- An attainable goal will usually answer the question:
 - I. Can the goal be accomplished with available time and resources?**
 - Time
 - Background knowledge and skills
 - Access to facilities or resources
 - Access to people with expertise

RELEVANT GOAL

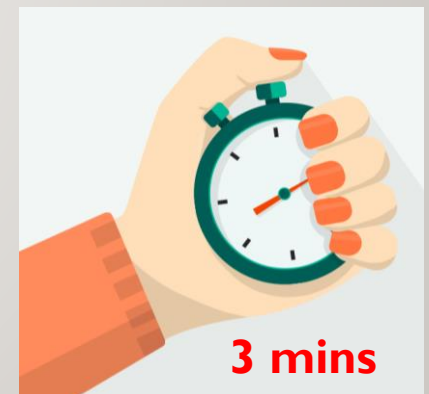
- A relevant goal will usually answer the questions:
 1. Does this goal complement my short, intermediate, and long-term goals?
 2. Is this goal aligned with current research in my field of study?
 3. Is this goal appropriate for my current level of knowledge, resources, and expertise?

TIME BOUND GOAL

- A time-limited goal will usually answer the questions:
 1. **When?**
 2. **What can I do six months from now? What can I do six weeks from now?**
 3. **What can I do today?**

Activity # 4: List some goals you'd like to accomplish this academic year

Take a few minutes to take one your goals and restate it to fit the S.M.A.R.T. template



What was challenging in reframing your goal using the SMART framework?

- Open Discussion

Resources for writing S.M.A.R.T. Plans

- The Student's Guide to SMART Goals
 - <https://www.purdueglobal.edu/blog/student-life/smart-goals-for-students/>
- The Student Guide to SMART Goals (American Intercontinental Univ)
 - <https://www.aiuniv.edu/degrees/business-administration/articles/the-student-guide-to-smart-goals>
- Examples of Measurable Goals and Objectives
 - https://www.tntech.edu/research/pdf/resources/proposaldevelopmentresources/Examples_of_Measurable_Goals_and_Objectives.pdf

SOME USEFUL LINKS FOR IDP

- Building Your Individual Development Plan (IDP): A Guide for Undergraduate Students
 - <https://medium.com/stem-and-culture-chronicle/building-your-individual-development-plan-idp-a-guide-for-undergraduate-students-f14feca9111c>
- Example of a goals worksheet.
 - <https://drive.google.com/file/d/0B6jsUuSJqdDaUjJpQUV6X2VWMGc/view?resourcekey=0-9XeEJ1FLKeMkhQ9OfCMliw>
- Individual Development Plan (IDP) guidelines
 - <https://www.csusb.edu/sites/default/files/STEP%204%20-%20an%20UndergradResearcher%27s%20IDP.pdf>