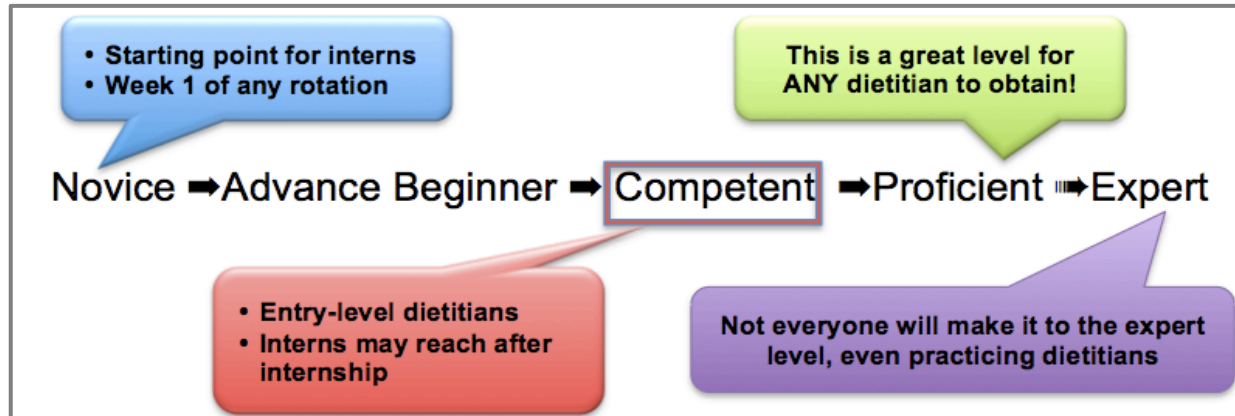




## INTERN LEARNING MODEL



Before starting the internship, dietetic students’ complete coursework covering a wide range of core knowledge areas (KRDNs) defined by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), the accrediting agency for dietetic education programs. Each program’s curriculum is designed to cover the breadth and depth of knowledge needed to begin supervised practice (dietetic internship). This didactic training primarily occurs in the classroom via lectures and textbook reading; it is typically assessed via written exams and case study reports. Classroom instructors are not able to cover all the permutations of diseases and social conditions that patients can present with in the clinical setting. We also have not figured out to how teach students to develop clinical judgement in a classroom-setting. For these and other reasons, it is a large transition for a student to move from demonstrating their knowledge in a classroom, to applying it in the clinical environment. This document describes the characteristics of learners in various stages of applying their knowledge a practice-based settings.

The Academy of Nutrition and Dietetics expects interns to perform as entry-level RDNs after completing the internship. During the internship, students are expected to acquire clinical judgement and practice additional skills expected of a dietitian. The stages of learning in a practice-based setting are not linear; interns, and practicing dietitians, may regress when moving to a new site, service or location. While regression might be discouraging, it is a normal part of the learning process and getting up-to-speed in the new setting often goes faster with more experience. Interns will vary in

how quickly they move through the stages. Some interns might progress from Novice to Advanced Beginner in the first couple of weeks of a rotation, or they might take longer to move through earlier stages, and then progress rapidly once they have a solid foundation. Interns may need time to adjust from one preceptor to the next as precepting styles are often different. It is important to check in regularly to support their growth towards independence.

In addition to modeling the characteristics of an effective preceptor,

a preceptor can support an intern’s growth towards independence by identifying where an intern is in their learning process and then using some or all the suggested actions in the table below.

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### Effective Preceptor Characteristics:

- Share your expectations (early & often)
  - Demonstrate approachability
  - Offer patient care responsibilities
  - Actively instruct the intern
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# CHARACTERISTICS OF LEARNERS IN PRACTICE-BASED SETTING & HOW TO SUPPORT GROWTH

NOVICE	ADVANCED BEGINNER	COMPETENT
<p><b>Intern Characteristics:</b></p> <ul style="list-style-type: none"> <li>• Limited (if any) previous clinical experience</li> <li>• Learning the lay of the land, not only how to get from point A to B, but how to tell if TFs are running, who the medical team members are, and how to navigate the EMR</li> <li>• Textbook learner, has difficulty recognizing learned concepts in actual clinical patients</li> <li>• Carries around notes, refers to them when answering questions</li> <li>• May struggle with information overload or seeing the big picture</li> <li>• Relies heavily on memorization</li> <li>• Desires to get things “right”</li> </ul>	<p><b>Intern Characteristics:</b></p> <ul style="list-style-type: none"> <li>• Acquiring practical experiences</li> <li>• Applying textbook learning to observations</li> <li>• Characterizes learned examples into groups                             <ul style="list-style-type: none"> <li>→ Still struggles to differentiate between extraneous and important information</li> </ul> </li> <li>• Should still seek guidance and requires correction</li> <li>• Unsure in certain situations but gaining confidence and independence</li> </ul>	<p><b>Intern Characteristics:</b></p> <ul style="list-style-type: none"> <li>• Increased exposure to experiences and norms</li> <li>• Able to characterize information into a hierarchy of importance</li> <li>• Higher engagement in independent practice</li> <li>• Willing to take risks</li> <li>• Realizes it is unrealistic to always “get it right”</li> <li>• Further reading/textbook learning makes <i>more</i> sense now that intern possess concrete examples for applying the knowledge</li> </ul>
<p><b>Preceptors Can Support Growth By:</b></p> <ul style="list-style-type: none"> <li>• Walk them through the physical space &amp; introduce them to colleagues</li> <li>• Allow the intern to observe you providing patient care</li> <li>• Explain your thought process (as able)</li> <li>• Assign patient care related tasks                             <ul style="list-style-type: none"> <li>→ Tasks should be well-defined, have limited scope, and lay the foundation for completing more complex tasks in the future</li> </ul> </li> <li>• Share facility-specific Standards of Care, explain your understanding of the literature and then share how you apply the information (helps develop their clinical judgement)</li> <li>• Demonstrate approachability (Welcome them, Invite them to coffee or lunch, express interest in them as a future colleague)</li> <li>• State your expectations &amp; provide feedback on what they did well and/or what they should do differently next time to meet your expectation</li> </ul>	<p><b>Preceptors Can Support Growth By:</b></p> <ul style="list-style-type: none"> <li>• Explain what information is the most relevant to a care decision (as able)</li> <li>• Redirect if they get lost in extraneous information</li> <li>• Assign patient care related tasks                             <ul style="list-style-type: none"> <li>→ Tasks should have a moderate scope and build towards independence</li> </ul> </li> <li>• Have them practice ranking patient information and care responsibilities into hierarchies of importance</li> <li>• Demonstrate approachability</li> <li>• State your expectations &amp; provide feedback on what they did well and/or what they should do differently next time to meet your expectation</li> </ul>	<p><b>Preceptors Can Support Growth By:</b></p> <ul style="list-style-type: none"> <li>• Encourage Independence</li> <li>• Demonstrate approachability</li> <li>• Suggest they read specific text to gain more understanding                             <ul style="list-style-type: none"> <li>→ Textbook learning finally adds to their knowledge-base because they have concrete examples of how to apply the information</li> </ul> </li> <li>• Engage them with more challenging situations</li> <li>• Increase their caseload</li> <li>• State your expectations &amp; provide feedback on what they did well and/or what they should do differently next time to meet your expectations</li> <li>• <b>NOTE:</b> The intern may or <u>may not</u> master this stage by the end of their time with you                             <ul style="list-style-type: none"> <li>→ When evaluating your intern, offer feedback on how they can move toward entry-level proficiency</li> </ul> </li> </ul>

A preceptor may acquire an intern during any of the learning stages listed in the table. To help determine where your intern is in their learning process, consult the table and ask your intern questions about their experiences and comfort level.

The pace, sounds, and smells of the clinical floor are very different from the controlled environment of the classroom and library. Due to restricted access of the clinical environment, many interns will not have previous experience working on a clinical floor and may experience sensory overload or feel overwhelmed.

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#### How to support an intern who feels overwhelmed:

- Let them observe
- Share your thought-process on how you would proceed
- Assign a single, well-defined task for them to complete
- Minimize interruptions or offer a quiet workplace
- Send them on a 15-minute break for a snack or walk outside
- Please do not send them to read off the floors!
- For continued occurrences, reach out to the program director

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### Novice

A novice intern has minimal hands-on experience. People in this stage may have anxiety about knowing the right answer so they are prone to using concrete rules and notes. They often carry binders filled with reference manuals, notes, and cheat sheets. The novice intern is relying on memorized facts and is preoccupied with getting things right. Novice learners should be provided with opportunities to gain exposure to clinical care. Preceptors can help by explaining their thought processes and actions while assessing and caring for patients. Especially in the early stages of the internship, allowing the intern to observe others applying their clinical knowledge is helpful.

**Clinical Example:** A few days into their rotation, Alex's preceptor asks them to check if one of their ICU patients' tube feeding (TF) is running. Alex goes into the room and sees the bottle hanging but does not check the pump, which has been turned off. They report back that the TF is running. Alex does not understand all the equipment in a patients' room, and they did not think to double-check with the nurse as they are still unsure of the roles of other team members on the floor.

**Analogy (Learning how to cook):** The intern requires a specific recipe to prepare a dish. They make a grocery list of each item to be purchased and follow the recipe exactly. If they forget one of the ingredients, they return to the store to get it as they have not yet learned how to improvise or identify foods that might be used as a substitute.

### Advanced Beginner

The intern has gained some practical knowledge and can apply more of their textbook knowledge to patient care. They still find it challenging to categorize information as extraneous or important. They require guidance, correction and help in identifying important learning opportunities.

**Clinical Example:** Pat is currently one month into their rotation. Some of their classmates remain in the novice phase, an appropriate level for this point in their training. Pat has exhibited impressive strides, grasped how to calculate tube feeds for more complicated patients on the otolaryngology floor, and can efficiently chart on multiple patients a day. However, Pat did require more guidance when they started following a patient with multiple comorbidities and complicated medical history. When Pat moves to the transplant service, they will need to learn how the patients and the service differ but will be able to apply some knowledge from their previous clinical experiences. Pat's questions are now less general and more specific to unique experiences they have not previously encountered.

**Analogy:** The cook has learned that in a recipe that calls for whole milk, it is possible to substitute another form of milk. They understand that in this recipe the milk provides the liquid and using lower fat milk is one way to decrease the calories in the final product. However, they do not understand which substitutions are acceptable in each situation. For example, they tried applying their knowledge about substituting a lower fat ingredient to a custard recipe by using egg whites instead of egg yolks. Unfortunately, this is not an appropriate substitution, and the final product was inedible.

## **Competent**

Interns near the end of their internship and new RDNs may be in this stage. They have been exposed to many clinical care situations. They can establish a hierarchy of importance when assessing a patient and know which things to look for with a given diagnosis. The intern can engage in more independent practice, is willing to take risks, and realizes that it is unrealistic always to be “right.” Further reading contributes to their knowledge more than it did when they were in earlier stages because now, they understand how the pieces fit together and have actual experiences to understand the implications. Re-reading texts from their didactic learning may now make *more* sense.

**Clinical Example:** Rory is nearing the end of their internship and can mostly work independently, effectively, and efficiently. They have had exposure to clinical practice in previous rotations, and while they have not been exposed to every medical service, they feel comfortable caring for both stable and acutely ill patients. They are more confident in their ability to make decisions. They occasionally attend rounds alone when their preceptor is unavailable. Rory can use appropriate clinical judgment about when they are qualified to recommend a tube feed to the team. In more complex situations, they tell the team that they will consult their preceptor before sharing an action plan.

Rory’s classmate Jamie is at the same hospital and is also nearing the end of their rotation. Jamie has had similar exposure as Rory but learns at a different pace and remain in the Advanced Beginner stage. Both Rory and Jamie have improved and met expectations as interns throughout their internship. They are both considered “entry-level” when seeking job opportunities; however, Rory will likely require less orientation and might move to a more complex floor faster than Jamie.

**Analogy:** The cook is trying more complicated dishes in a variety of cuisines. They have picked up some key examples of what ingredients are necessary for preparing healthy and tasty food, but still have more to learn. Now they can prepare a range of dishes without a recipe, like stir-fries and stews, but still need instructions to make a soufflé.

## **Proficient**

As people in this stage are talking to patients, they can be intuitive about the whole clinical picture and what nutritional issues might be present. They act quickly and appropriately. They have learned to notice key signs and symptoms and likely have a refined set of questions to ask both patients and the medical team. Proficient RDNs can take quick action based on their experience. At this point, decision-making has transitioned from what was learned in school, to being based more on experience.

**Clinical Example:** Kai has been a practicing dietitian for 5 years. They have perfected their craft on their service with head and neck cancer patients and have built a good rapport with the team. Kai keeps up with current research and has been precepting interns for a couple of years. Kai can easily cover other floors when the usual RDN is out, but they are not as knowledgeable or up to date on the research for the other patient populations. If they were to switch services permanently or move to another hospital where work is distributed differently, they may briefly return to the advanced beginner/competent stages of learning. Given their years of experience, they would likely become proficient in the new area much faster than when they started as a dietitian.

**Analogy:** The cook can now prepare complex dishes without a recipe and modify recipes to make them cheaper, lower-calorie, sweeter, more colorful, or a different texture. If they want to learn an entirely new dish, they may have to look at a recipe, but it will not take long to learn the new concept. Proficient cooks are effective at preparing quality meals. They have learned how to change recipes to accommodate specific needs and can prepare a wide range of dishes without a recipe.

## **Expert**

This dietitian has vast experience and knows what to do almost immediately regardless of the service/patient population. Their knowledge is so broad that they do not “sweats the small stuff” and know when and where to take risks. Experts are active participants in the field; they may present at conferences, write guidelines, contribute to textbooks, develop curricula, or publish peer reviewed articles. Not all dietitians will reach this level. Some may prefer to become proficient in multiple areas of dietetics over the course of their career.

**Clinical Example:** Dallas has been in dietetics for many years, working on multiple medical services, and has gained vast clinical knowledge. They function as an unofficial mentor to many of their coworkers. Dallas has extensive medical knowledge from their years of clinical experience and understands care norms beyond the usual scope of dietetic practice. Dallas is often invited to speak at state and national conferences. They have contributed to research, submitting articles and writing textbook chapters on their area of expertise. While Dallas had not aspired to be an “expert” when they started long ago as an intern, their passion and knowledge for the field motivated them to move beyond proficiency.

**Analogy:** The cook can create their own recipes, prepare a meal for a large crowd, or write a cookbook for novice cooks to learn from.

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Information was adapted for use by UW dietetic preceptors from:

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