Probing Instructor Candidates for theoretical course content

Mastery Learning™ changes the way students learn and therefore changes the way instructors must teach. Because students now arrive **fully prepared**, having completed online theory at their own pace, the instructor's role is no longer to lecture but to **verify understanding, correct misconceptions, and guide application** of the material. To do this effectively, instructors must not only be trained to use probing questions but also have a good theoretical knowledge and be able to explain information to students from a variety of backgrounds.

1. Why Instructor Probing Skills Matter

Mastery Learning™ ensures students arrive prepared. Students show up already familiar with GUE theory. They are ready to:

- Ask questions
- Apply knowledge
- Link theory to real diving

This means instructors must be able to respond to student questions at any moment, from any part of the course.

The instructor no longer controls the pacing of theory. In the traditional model, the instructor delivered theory in a fixed order. With the Mastery Learning™ model students require clarification that is on-demand and unscheduled. Therefore, instructors must have a deep, flexible understanding of all course content, not just the sequence of slides.

2. What Instructors Need to Demonstrate

Instructors must be able to:

1. Answer any student question at any time

- Without preparation
- Clearly and concisely
- Using the correct GUE theory

2. Explain complex concepts simply

Probing requires the instructor to break down topics into understandable components.

3. Link theory to practical diving benefits

Every answer must reinforce *why the knowledge matters* to the student and *how* to implement it.

We train instructors to do this by exposing them to real questions, taken from real classes.

3. Role of Lectures in the ITC

During the ITC, instructor candidates will still learn:

- Lecture structure
- How to prepare a lesson
- How to give a formal introduction to GUE

This remains important for:

- Inspiring students
- Storytelling
- Setting up field drills
- Delivering safety-critical information

However, lecture ability is no longer sufficient.

4. New Method: Probing Instructor Candidates Using Real Student Questions

To mirror real-world teaching, instructor candidates will now be:

- Asked real student questions
- Without preparation
- During any portion of the ITC
- With expectations identical to a real class

This models the environment they will face once certified.

Examples of real probing questions used during ITC:

- “How do I calculate my minimum gas, and why is the real ascent profile different from the math?”
- “Why is bar/min an important concept? My SCR is 15 L/min—can we make a table for that?”
- “Why does GUE have a different ascent strategy to what I have used before? 9/6/3 instead of a 5 m safety stop?”
- “What are gradient factors, and how do they impact my dive?”
- “How much weight do I need and why?”
- “If we ascend from 4 m in confined water, where is the first stop and how much gas do I need to dump?”
- “Can you explain the MDL table vs pragmatic deco for dives to 18 m and 21 m?”
- “How do you control ascent speed?”
- “How do I equalize effectively if I struggle?”
- “Where is the first ascent stop from 21 m and why?”
- “Can I use a dive computer?”
- “Can I dive in a wetsuit?”
- “Do I need to analyze air tanks as well?”

This list is in no way an exhaustive list, this will continue to grow as more and more students take the classes. By adding to this list we will all be able to learn from each other.

These questions require the instructor candidate to demonstrate **understanding**, not memorization, and an ability to relate theory to what the students will actually do.

When assessing an instructor's theoretical knowledge you should use probing questions to show instructors how effective the technique is.

5. What the IT/IE is Evaluating When Evaluating Instructor Candidates

Use these questions or other questions you have been asked by students in class when training the instructor. Every answer must demonstrate:

1. Theoretical knowledge is correct

The instructor must understand the physics, physiology, and procedural standards behind the topic.

2. The answer actually addresses the student's question

Not a tangent, not an approximation. You want to hear an accurate, clear response.

3. Explanation is easy to understand

The instructor must pitch the information at the level of the student without losing accuracy. A deep dive into gradient factors may not be relevant or beneficial to a Performance Diver Student.

4. The explanation includes: "Why this matters to you as a diver."

Probe responses must always connect back to real-world diving:

- Safety
- Awareness
- Teamwork
- Gas management
- Buoyancy
- Stress prevention

If a real student cannot see why the knowledge helps them dive better, the explanation has failed.

6. Training Outcomes

A well-prepared instructor with good theoretical knowledge will:

- Confidently answer any question at any time
- Reinforce learning through application
- Maintain student engagement and curiosity
- Connect all theory with diving practice