**COM Assessment Primer: Student Learning Outcomes**

The purpose of this document is to provide information that may be helpful when developing and measuring student learning outcomes.

Student learning outcomes (SLOs) are statements that define what a student should be able to demonstrate when they have completed a course or academic program. Outcomes focus on what students should be able to DO with what they have learned, rather than on content or coverage. As we design outcomes, we should ask:

* How will students demonstrate knowledge and skills?
* What can students produce to show faculty members that they have learned to apply their knowledge?

The NBOME standards will serve as learning outcomes at the program level, and we need to design course related learning outcomes that fit within the NBOME standards. Developing and measuring learning outcomes increases the likelihood of student success.

Developing student learning outcomes can assist faculty by:

* Increasing understanding of how to facilitate student learning
* Communicating to students explicitly what is expected of them
* Providing COM with data to determine: What skills are students learning? Are students learning what we want them to learn? Are these the skills/behaviors we are teaching our students?

Student learning outcomes improve student learning by:

* Strengthening our program and courses so that students are more likely to achieve integrated, high level learning skills that they can demonstrate to others.
* Enabling students to articulate their learning and apply their knowledge in clinical settings.

Students perform at higher levels when they know exactly what is expected of them and how the expectations will be evaluated. Outcomes should be as clear, specific, and focused as possible; general outcomes can be difficult to measure. Learning outcomes specify an action that is observable, measurable, and capable of being demonstrated. Therefore, they should begin with action verbs.

Consider the following examples:

1. Students will understand the mechanisms responsible for major forms of anemia and the basis for altered laboratory values.

* Learning is demonstrated, but understanding is very difficult to measure.

1. Students will read chapters 5-8 in the textbook.

* This is a content objective that can be measured, but it does not tell us what students can do with this the knowledge from the textbook.

These learning outcomes have deficiencies. More appropriate outcomes would be:

1. Describe the mechanisms responsible for major forms of anemia and the basis for altered laboratory values
2. Diagram the coagulation cascade, as covered in chapters 5-8 in the textbook.

*Additional Examples* – Very General and VERY HARD to measure:

1. …will appreciate the benefits of OMM.
2. …will understand the systems of the human body.
3. …will become familiar with principles of effective patient care.
4. …will develop problem-solving and conflict resolution skills.

*Additional Examples* – SPECIFIC and relatively easy to measure:

1. …will explain how OMM is different from other types of medical practice.
2. …will identify anatomical structures in their healthy and diseased state
3. *…*will demonstratea respectful and careful “patient” *examination* using observation and palpation.
4. …will analyze and respond to arguments about SES issues as they relate to patient care.

Please see the document with Bloom’s (1956) taxonomy and action verbs.