

Ray Hylock, PhD
Statement of Teaching Philosophy
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I have always enjoyed sharing what I have learned and exploring new and exciting areas. Much of my enthusiasm was borne from the excitement exhibited by the instructors I had throughout my education. I would not be here today if not for those who made learning (not just passing, but *learning*) an absolute joy – the thrill of solving a problem you never thought you could, exploring a subject simply because it was interesting, or the pleasure one receives from having a deeper understanding of and appreciation for a topic. Thinking back, several names immediately come to mind. The common theme: all taught with passion and provided constructive feedback and encouragement. As a result, student confidence grew and learning advanced beyond what some thought possible. It is this philosophy of instructing with passion and excitement, and always being positive and encouraging that has become the basis of how I approach teaching.

In terms of instructional theories, I adhere to the minimalist approach. This means the course progressively builds on self-contained, minimal activities, using error recognition and recovery (ERR) to reinforce concepts in realistic, interactive environments. Didactic learning is the foundation of all my courses. Whenever possible, I employ experiential learning as the reinforcement mechanism. Many topics I teach – e.g., database systems, privacy and security, and project management – require students to apply learned concepts to novel situations (as expected in industry). Sample output includes: database, systems, and software diagrams; SQL code; policy critiques; systems and software HIPAA compliance reports; HIPAA compliant policies and procedures; request for proposals; budgets; and Gantt charts. These concepts are best mastered through direct manipulation of the tools and practice. This is where ERR enters.

ERR is a process of providing positive and negative examples, forcing the student beyond problem solving to solution finding. Through the analysis of incorrect solutions, students challenge and reinforce their understanding of the materials. While I present such cases, interacting with students on, e.g., their assignments, poses an ad hoc, learning environment in which students have a vested interest in the outcome. Relating to this very topic, in the area of database course design and implementation for health informatics and information management students, I have two publications^{1,2} – the most recent¹ includes the only comprehensive, open-source instructional set of health care databases to date.

I have also long believed there is a symbiotic relationship between teaching and research. Theoretical, applied, and pedagogical research form the foundation on which courses stand and thrive. Observations, techniques, and tools developed for the classroom then contribute to the instructional design literature and present opportunities to engage students in scholarly activities.

¹ Hylock, R. & Harris, S. (2017). Healthcare Database Management and HIIM Students: Challenges and Instruction Strategies - Part 2. *Educational Perspectives in Health Information Management*. Summer.

² Hylock, R. & Harris, S. (2016). Healthcare Database Management and HIIM Students: Challenges and Instruction Strategies - Part 1. *Educational Perspectives in Health Information Management*. Spring.

As an instructor, I consciously integrate research-related activities into the classroom. The health informatics and information management domain is codified in peer-reviewed publications, state and federal statutes, and industry standards. As we navigate a subject's history, we analyze important moments relative to itself and today. Using cryptography as an example, algorithms once deemed secure and state-of-the-art (even as recent as 2016), are now considered unsafe. Quantum computing has advanced with such veracity as to halt the US government's cryptosystem migration schedule (followed by all industries) until suitable algorithms can be established. The point of such an exercise is to illustrate the highly volatile nature of the field and why one must be a lifelong learner. To achieve the latter, I incorporate various research-focused assignments such as examining and authoring case studies, writing term papers, and designing systems adhering to published methodologies and industry standards. Grants and projects I have contributed to are also integral components of my lectures and assignments; allowing students to experience real-world scenarios, data, and challenges. For instance, students analyze my research cluster, its network, and storage array for HIPAA compliance and conformance to published best practices. They also model, clean, merge, de-identify, and answer questions of realistic large-scale health care databases I created and published specifically for teaching.

Additionally, I believe a crucial element to a student's success is instructor interaction and availability. I try to be as open and available as possible, especially for our distance students who generally do their schoolwork at night and on weekends. For them to be successful, I must be available during those hours to ensure an uninterrupted flow of learning. That is, I want to minimize the time from student question to my response. The intent is to assist the student when the problem is fresh in their mind, so they do not have to come back, e.g., the next day and work back up to that point. Thus, I make a concerted effort to be available seven days a week until at least midnight. I have had many conversations with students (be it about class or life) from midnight and beyond.

Lastly, I am a huge proponent of constructive feedback and encouragement. Graduate school is and should be challenging. Some students struggle with the increased expectations and time requirements. I have spent many afternoons and evenings chatting with students who feel overwhelmed and unsure as to their abilities. It is truly amazing how far a few encouraging words can go. Beyond being available for these conversations and offering encouragement (within reason given the realities of the course and abilities of the student), I provide copious, constructive feedback on all student work and offer praise when possible. Simply marking a problem as "wrong" misses an opportunity for personalized learning. For instance, if a student's solution to a SQL query is incorrect, I find out why (debug it) and explain to them what went wrong, how to correct the issue, and why. I want them to learn the material, not simply get a good grade on the assignment. For that to occur, I must provide substantial and beneficial feedback. Furthermore, if a student struggling with, e.g., SQL gets one right or most of a very hard problem correct, I write an encouraging statement to let them know they are on the right track and that I am proud of their effort and growth in understanding the material. It seems trivial, but a simple comment can have a profound impact on students (so say my students).

The following are my teaching objectives. They diverge from traditional norms, but, to me, objectives like “conveying course materials”, “ensure relevance”, and “conform to accreditation standards” have no real impact on course success; they are simple items to check off after a lecture, whether delivered in an effective manner or not. Instead, these are self-evaluation metrics to ensure I am providing the best learning environment possible.

Objective	Justification/Methods	Measures/Reflection
<i>Main:</i> Lead, do not just teach	My job is not simply to educate, but to ensure students understand their strengths and value, and that they are capable of more than they believe possible. To achieve this, I must be successful in all subsequent objectives.	<ul style="list-style-type: none"> • Student comments to this effect • Success in subobjectives • Self-reflection: What more could I have done?
<i>Sub:</i> Build meaningful rapport with students	Make it abundantly clear throughout the semester that I am always available and am invested in the success of each student. More so, <i>be</i> available nights and weekends, seven days a week.	<ul style="list-style-type: none"> • Student comments to this effect • Self-reflection: Was I available and genuine?
<i>Sub:</i> Be available during student working hours	Almost all my students are distance education learners. Therefore, they tend to watch lectures, study, and work on assignments at night and on the weekends. For them to be successful, I must be available during those hours to ensure an uninterrupted flow of learning.	<ul style="list-style-type: none"> • Student comments to this effect • Self-reflection: Was I available? How many emails did I miss? Did email patterns change?
<i>Sub:</i> Emphasize learning	Ensure students are aware of the volatility inherent in this discipline and promote lifelong learning as a preparatory measure. The most effective examples are those from current events, e.g., changes to Meaningful Use (now Promoting Interoperability), advancements in quantum computing, the shift from quantity to quality-based reimbursement, increasing health information system attacks, and medical device vulnerabilities. The threats of tomorrow and their controls may not even be known today. Only through lifelong learning can one be prepared.	<ul style="list-style-type: none"> • Student comments to this effect • Self-reflection: Did I frequently illustrate recent developments and examine HIIM pre and post-event? Did I provide sufficient tools and resources to support lifelong learning activities?
<i>Sub:</i> Set clear “destinations”	Make known the “destination” (e.g., the proper deconstruction of a requirements statement to produce a database model) so avoiding the inevitable “obstacles” does not result in the aimless “wondering” of students. That is, clearly motivate a topic, justify its existence and relevance to students, and identify the intended output. Furthermore, have “obstacle” material planned for well-established challenges to illustrate their “avoidance” and how to resume the task at hand.	<ul style="list-style-type: none"> • Student comments to this effect • Self-reflection: Were the “destinations” clear? Did I provide adequate “avoidance” examples? Did I successfully modify examples for challenges faced by students?
<i>Sub:</i> Provide sincere encouragement and honest critiques	Provide copious, constructive feedback on all student work and offer praise whenever possible. Explain, in detail, student errors, complete with any requisite visualizations, slide references, tables, or other materials to clarify my remarks or misunderstood concepts.	<ul style="list-style-type: none"> • Student comments to this effect • Self-reflection: Was I sincere and honest? Was feedback substantive, useful, and supportive?