



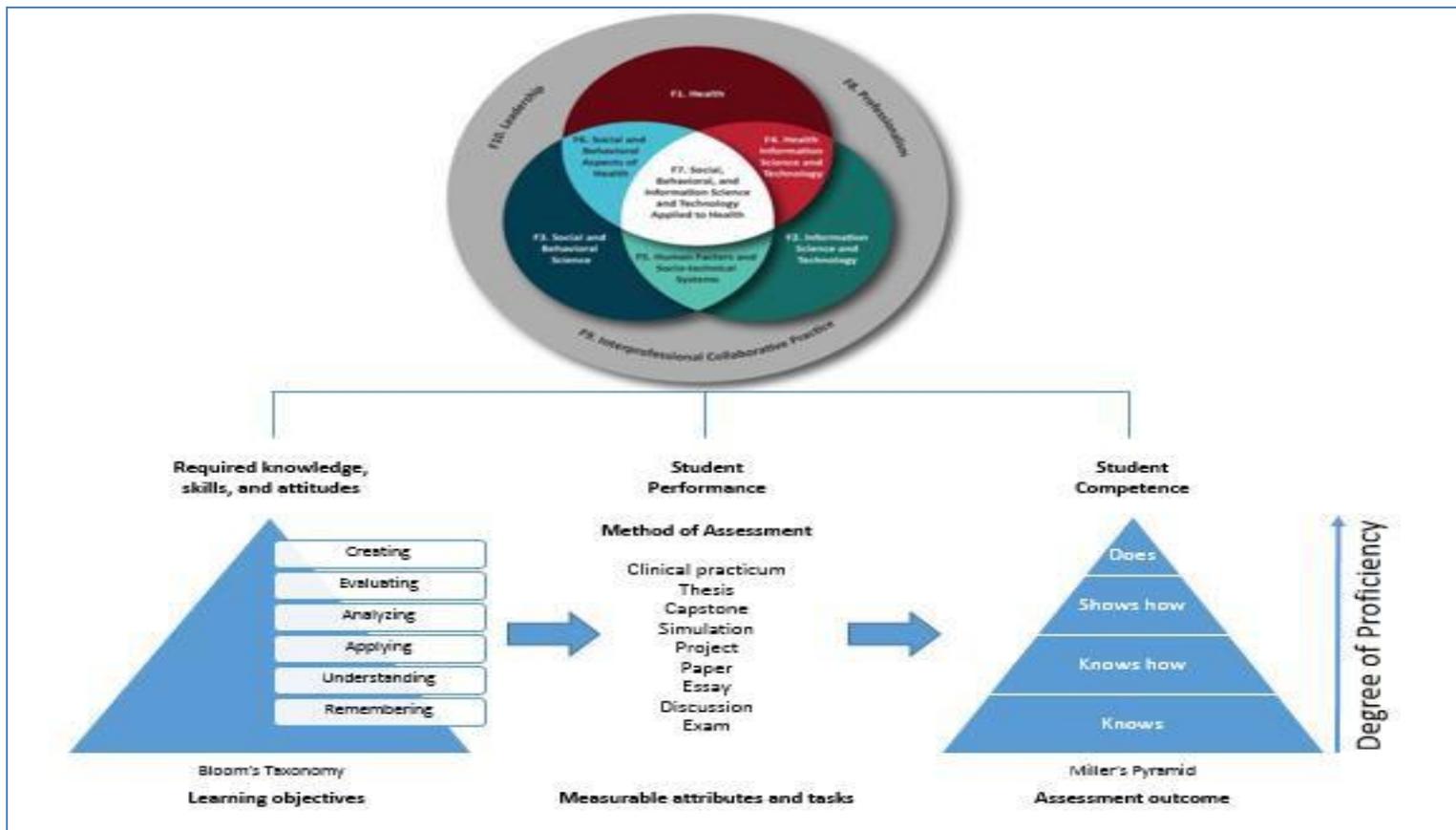
**Using the CAHIIM Self-Evaluation Tool (CSET):
A User Guide**

Using the CAHIIM Self- Evaluation Tool (CSET): Applying the curriculum evaluation tool to enable curriculum self-review

Before you begin using the CSET

- **Establish a Team to help with the curriculum review** - Program director, course directors, instructors, instructional designers, internship supervisors, lab directors, curriculum committee.
- **Communicate** - Overview to all faculty, frequent updates and discussions one-on-one for each faculty, involve the skeptics, faculty driven timeline
- **Identify Requirements**, assessments and activities - courses, projects, internships, lab rotations.
- **Ensure that course syllabi contain** course syllabi outcomes, understand the requirements of the AMIA Foundational Domains, have a comprehension of Competency Driven Education (CDE) and the new context of assessment in the curriculum evaluation process.
Instructors must plan carefully to align their objectives, instruction, and assessment to AMIA's Foundational Domains.

Commission on Accreditation for Health Informatics and Information Management Education



Considerations for developing Competency Driven Education:

- Identify the desired abilities needed of graduates – what will they know and be able to do when they have completed the program?
 - Define the required competencies and their curricular components
 - Define curricular milestones along a development path for the competencies
 - Select educational activities, experiences, and instructional methods
 - Select tools to measure progress during matriculation
 - Design an outcomes evaluation/ assessment of the program
- Assessment is an essential component of CDE and can include:
- Multiple interconnected elements
 - Varying assessment methods, disciplinary needs
 - Differing learning environments
 - Validity – Course Objectives should be clear, observable, and measurable. This will help ensure that the observed task or attribute being assessed was taught.

The type of the assessment, and the way it is completed, will determine which competencies are met. CSET will/should provide a mapping document that describes what is done by the learner and observed in a program. Be aware that the learner may have met or exceeded multiple competencies at varying levels of proficiency in AMIA’s Foundational Domains.

Examples of Assessments

Direct assessments measure /assess student performance of identified learning outcomes

Indirect assessments measure opinions or thoughts about student knowledge, skills, attitudes, learning experiences, and perceptions.

Direct Assessment	Indirect Assessment
Clinical practicum	360° Evaluation
Thesis	Surveys (national, local)
Capstone	Peer review
Simulation/Role play	Employer/supervisor survey
Research/Minute paper	Reflective journaling
Case study	Activity and study log
Portfolio	Structured interview
Tests and exams	

It is important that all learners earning a credential in a discipline meet the competencies; however, students meet competencies in different ways.

MILLERS Pyramid of Competency Assessment

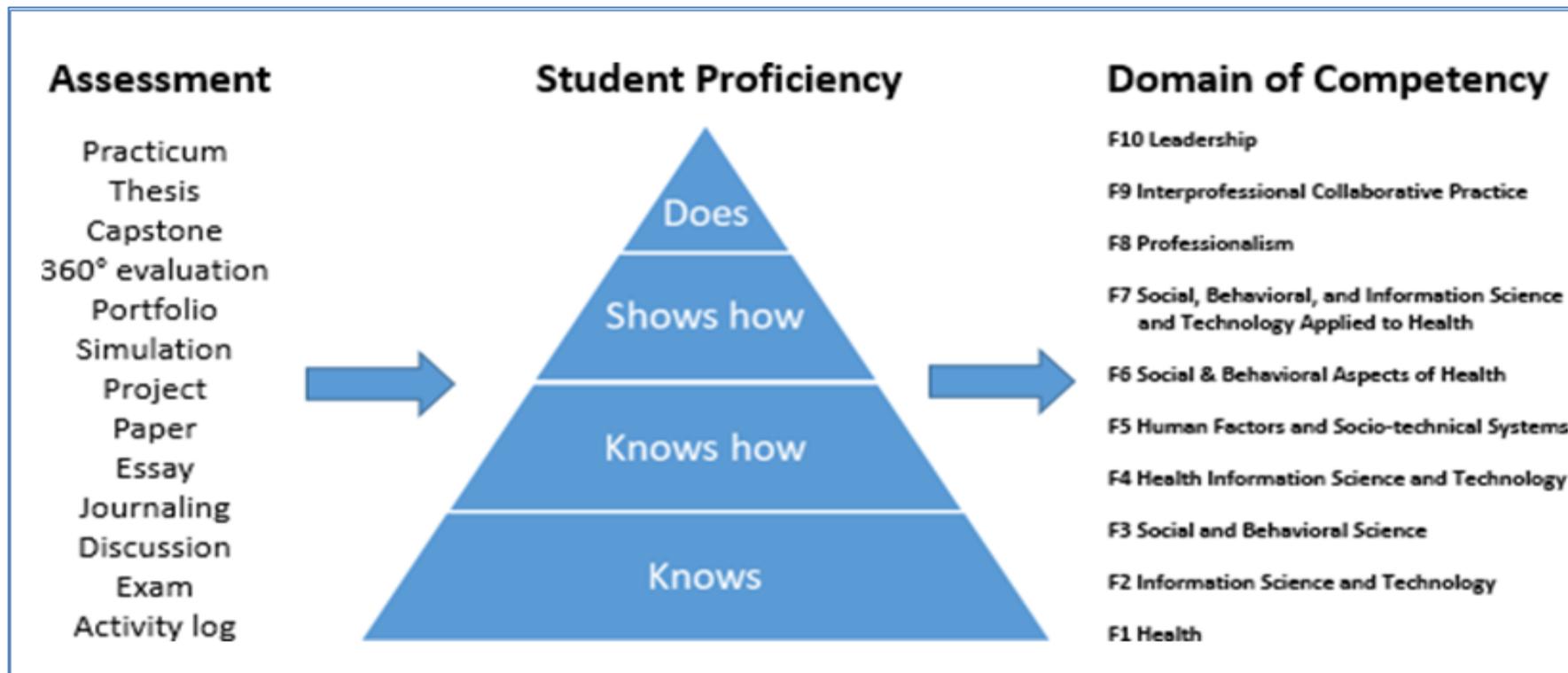
-Competencies refer to educational standards that establish the minimum that students in some disciplines are expected to know to receive their academic credentials.

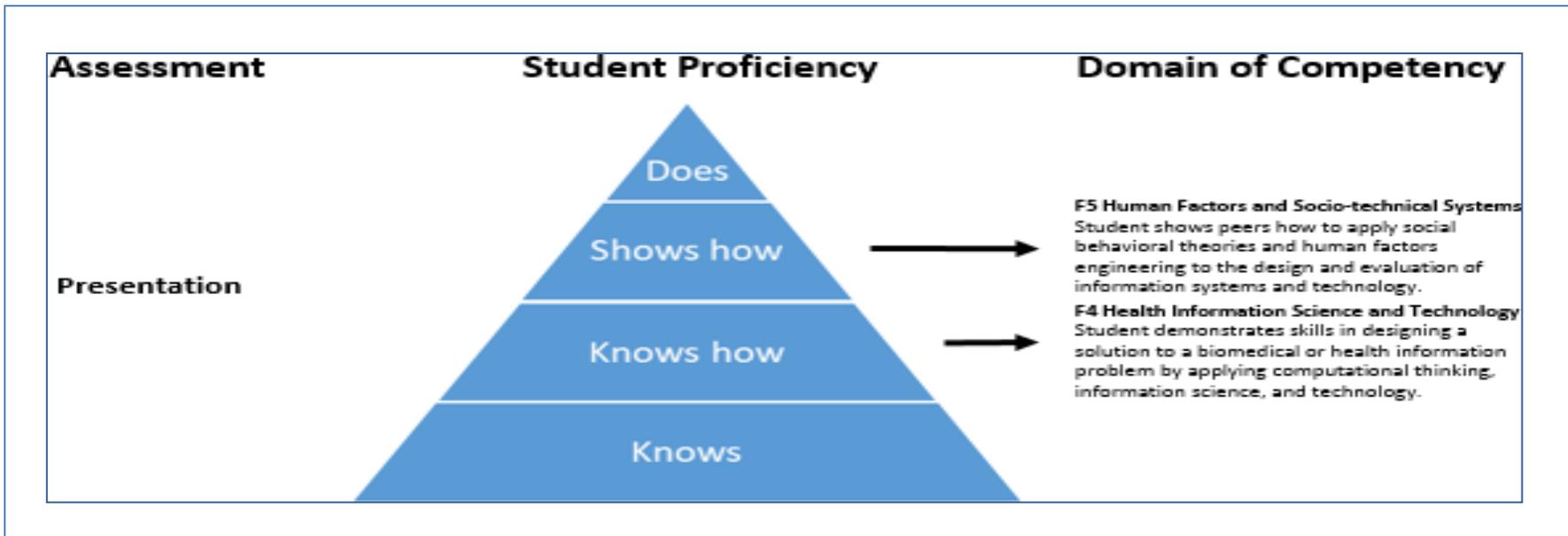
-Competency = Knowledge + Skills + Attitudes/Ability

Knowledge, skills, and attitudes are assessed through observable, measurable tasks and attributes

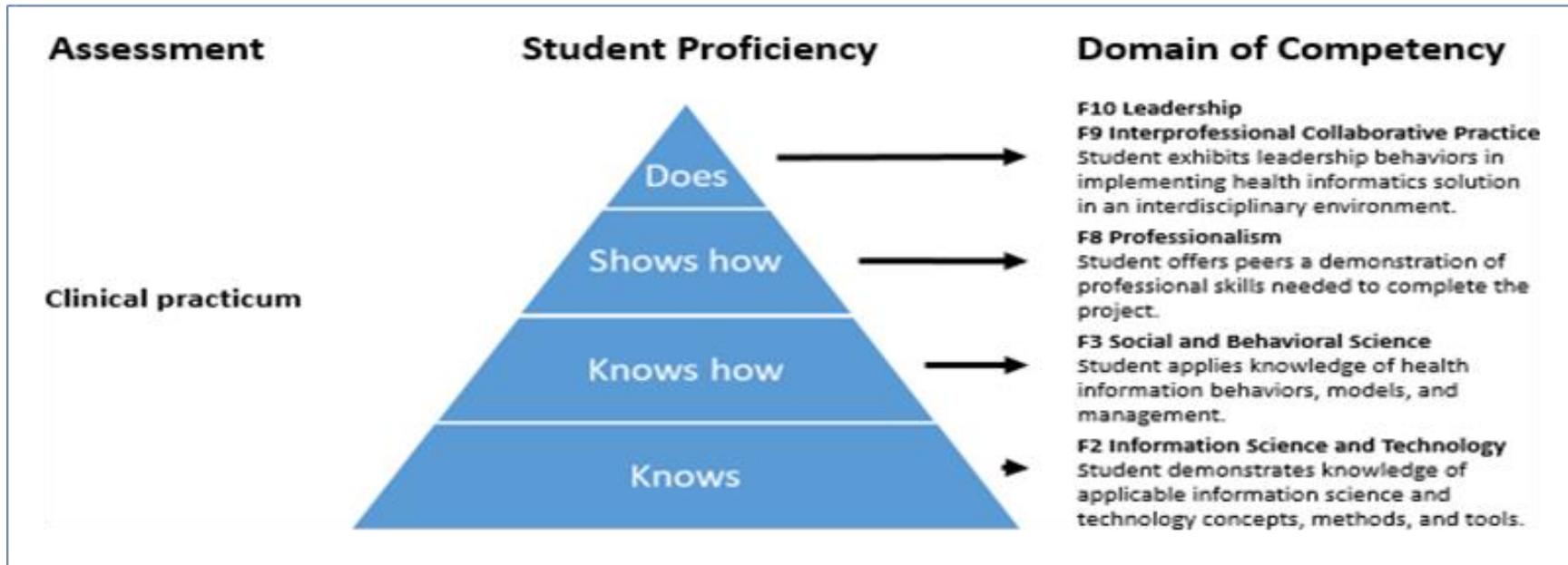
-One well-recognized framework for performance measurement is Miller's Pyramid of Competency Assessment, which considers not just what a learner knows, but *how* they know it – the quality of their knowledge in terms of cognition and affective behavior.

Examples of the Relation of Assessment Outcomes to AMIA's Foundational Domains, with Miller's Pyramid of Assessment Model





Examples of the Relation of Assessment Outcomes to AMIA's Foundational Domains, using Miller's Pyramid of Assessment as a guide to student proficiency



CAHIIM Self Evaluation Tool

CAHIIM Self -Evaluation Tool (CSET) includes a definition guide to the Foundational Domains and three worksheets: The Course Input sheet, Course Evaluation Matrix worksheet and the Concentration Heat Map. The user will input data for their Courses and Course Evaluation Matrix work sheets and this information will then populate the Concentration Heat Map.

USER INPUT Worksheets

Step 1. Input Courses. Begin by entering the name of the program.

Enter all courses needed to complete the program.
 This can include electives, but you will need to know the course objectives for these elective courses

Course Input is used to populate the Courses column on the Knowledge Domain Matrix

input from a drop down list Course Name	Course Objectives	Educational Activities	Assessments	Knowledge Domain	Miller's Competence Level (Miller's	This is automatic and will be locked to user input KSA
HIM 560 Intro to Health System Development		Discussion,	Data System development discussion, Exam	F1-Health	Knows	Knowledge
HIS 600 Data Mining						
<div style="border: 1px solid black; padding: 2px;"> MHI 234 Tester HIM 560 Introduction to Health System Development HIS 600 Data Mining and Research MHS 550 Healthcare Informatics </div>						

Step 2. You will create the Course Evaluation Matrix

input from a drop down list Course Name	Course Objectives	Educational Activities	Assessments	Knowledge Domain	Miller's Competence Level (Miller's	This is atomic and will be locked to user input KSA
HIM 560 Intro to Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health	Discussion,	Data System development discussion, Exam	F1-Health	Knows	Knowledge
HIS 600 Data Mining						

Using the Knowledge Domain Matrix

- All Foundational Domains must be covered in the program curriculum
- You may modify or delete content in each column as often as you would like.
- The workbook is protected
- Columns B (Course Name) through H (Knowledge, Skill, Attitude) can be sorted – select cell range between these columns and sort according to your filter
- There are over 700 rows that can be used for Course Learning Objectives.

If you have more Course Objective rows than are allotted, please contact CAHIIM and we will add additional access.

Knowledge Domain Matrix

Choose /enter the course you will be working with. There are pull down options on the right side of the course boxes that will allow you to select from the courses entered in Step 1. If you make an incorrect course selection, just hit Delete and begin again.

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HIM 560 Intro to Health System Development		Discussion,	Data System development discussion, Exam	F1-Health	Knows	Knowledge
HIS 600 Data Mining						
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1. Enter Course Learning Objectives.

What are the student take-aways, what outcomes should the student take away from the course? The Course Learning Goals / Objectives describe outcomes that are measurable and are written from the learner's perspective. For example, *When the course has been completed the learner should or should be able to...*

- Please enter one course learning objective per row: If the course has five (5) objectives, this would take up five (5) separate rows.

input from a drop down list Course Name	Course Objectives 	Educational Activities	Assessments	Knowledge Domain	Miller's Competence Level (Miller's Pyramid)	Knowledge, Skills, Attitudes/Abilities
HIM 560 Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health					
HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics solutions					
HIM 560 Health System Development	Demonstrate an awareness of the interrelatedness of human factors, behavioral, and information sciences and technology in the design, implementation, and evaluation of health informatics solutions.					

2. The Course Education Activities. These are Learner Interactions or the activities that promote or support the achievement of the stated Course Learning Objective.

input from a drop down list Course Name	Course Objectives	Educational Activities 	Assessments	Knowledge Domain	Miller's Competence Level (Miller's Pyramid)	Knowledge, Skills, Attitudes/Abilities
HIM 560 Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health	Discussion, Lectures, writing assignments				
HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics solutions	Lectures, writing assignments, presentation				

Examples include lectures, readings, case studies, web modules, speakers, presentations, class or online discussions, simulation exercises.

3. Assessments. The learning Assessments measure/evaluate achievement of the stated Course Learning Objectives. The learners are prepared for the assessments through the Course Activities. Examples include exams, papers, reports, logs or journals, team projects and team effectiveness assessment, Capstone, graded discussion, Thesis, Case Project Review and feedback, Reflective modeling.

Input from a drop down list Course Name	Course Objectives	Educational Activities	Assessments 	Knowledge Domain	Miller's Competence Level (Miller's Pyramid)	Knowledge, Skills, Attitudes/Abilities
HIM 560 Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health	Discussion, Lectures, writing assignments	Data System development discussion, Exam			
HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics solutions	Lectures, writing assignments, presentation	Group project, Case study paper			
HIM 560 Health System Development	Demonstrate an awareness of the interrelatedness of human factors, behavioral, and information sciences and technology in the design, implementation, and evaluation of health informatics solutions.	Health Data project.	Practicum, Thesis			

4. Knowledge Domains. Which Foundational Knowledge Domain is the Course Learning Objective covering? There can be more than one Foundational Knowledge Domain covered in a Course Learning Objective. If that is the case, then there must be a separate data row for each Knowledge Domain covered.

input from a drop down list Course Name	Course Objectives	Educational Activities	Assessments	Knowledge Domain	Miller's Competence Level (Miller's Pyramid)	Knowledge, Skills, Attitudes/Abilities
HIM 560 Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health	Discussion, Lectures, writing assignments	Data System development discussion, Exam	F1-Health		
HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics	Lectures, writing assignments, presentation	Group project, Case study paper	F4-Health Information Science and Technology		
HIM 560 Health System Development	Demonstrate an awareness of the interrelatedness of human factors, behavioral, and information sciences and technology in the design, implementation, and evaluation of health informatics solutions.	Health Data project,	Practicum, Thesis	F7-Social, Behavioral, and Information Science and Technology Applied to Health		

5. Millers Level of Competency

What level of proficiency is the Learner expected to achieve for the Course Learning Outcome? Choose the desired Millers level from the pull- down menu on the right side of the column

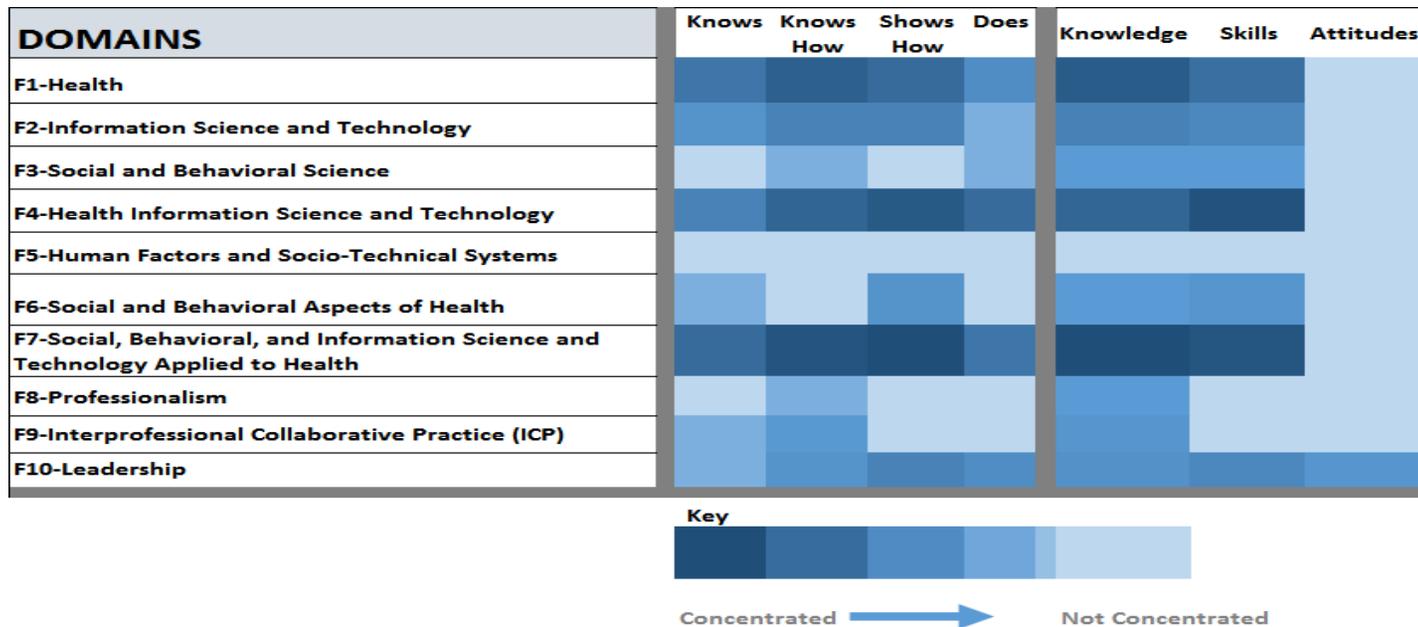
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HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics	Lectures, writing assignments, presentation	Group project, Case study paper	F4-Health Information Science and Technology	Shows How	
HIM 560 Health System Development	Demonstrate an awareness of the interrelatedness of human factors, behavioral, and information sciences and technology in the design, implementation, and evaluation of health informatics solutions.	Health Data project,	Practicum, Thesis	F7-Social, Behavioral, and Information Science and Technology Applied to Health		
					<div style="border: 1px solid black; padding: 2px;"> Knows Knows How Shows How Does </div>	

The level of competence achieved – Knowledge, Skill, Attitude /Ability No input needed. Results are driven from Miller's Pyramid level selected. This column captures the competency associated with the chosen Miller's assessment level.

input from a drop down list Course Name	Course Objectives	Educational Activities	Assessments	Knowledge Domain	Miller's Competence Level (Miller's Pyramid)	Knowledge, Skills, Attitudes/Abilities
HIM 560 Health System Development	Identify the history, concepts, terminologies and current challenges of the major health science fields including: biology, genomics, clinical and translational science, healthcare delivery, personal health, and population health	Discussion, Lectures, writing assignments	Data System development discussion, Exam	F1-Health	Knows	Knowledge
HIM 560 Health System Development	Apply theories, models and tools from business, information science and technologies for the selection, use, and evaluation of healthcare system informatics	Lectures, writing assignments, presentation	Group project, Case study paper	F4-Health Information Science and Technology	Shows How	Skills
HIM 560 Health System Development	Demonstrate an awareness of the interrelatedness of human factors, behavioral, and information sciences and technology in the design, implementation, and evaluation of health informatics solutions.	Health Data project,	Practicum, Thesis	F7-Social, Behavioral, and Information Science and Technology Applied to Health	Shows How	Skills

Heat Map

Courses and Course Data entered produces a Heat Map which will allow the user to see areas of concentration/ saturation in their program. When you begin, the heat map will be single color, a dark blue. As you add data to the Curriculum Matrix worksheet, you will begin to see variation in the colors.



If you have any questions, please contact CAHIIM staff @ info@cahiim.org