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Learning Outcomes Taxonomy Table

P	The Cognitive Process Dimension					
The Knowledge Dimension	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual Knowledge	 Remember Factual Knowledge Students will recognize the dates of important events in U.S. History.(History) Students will recognize types of radio and television ads. (Marketing) Students will identify two types of direct mail campaigns. (Marketing) 	Understand Factual Knowledge • Students will summarize an article, speech, or book. (Reading Comprehension)	 Apply Factual Knowledge Students will use graphic notation to represent sounds. (Music) Students will transcribe verbal utterances into phonetic symbols. (Speech Pathology) 	 Analyze Factual Knowledge Students will differentiate between various forms of dance including, but not limited to, jazz, tap, ballet, and modern. (Theater and Dance) Students will analyze historical facts and interpretations. (History) Students will make meaningful connections between mathematics and other disciplines. (Mathematics) Students will distinguish marketing from selling. (Marketing) 	 Evaluate Factual Knowledge Students will evaluate an article on its objectivity and accuracy in presenting the causes of the American Civil War. (History) 	 Create Factual Knowledge Students will design developmentally appropriate instructional experiences that promote the description and critical analysis of dance works, using a technical vocabulary based on the common elements of the discipline, i.e., space, time, force/energy. (Theater and Dance). Students will improvise on the notes G and E in response to a melodic question. (Music) Students will compose a paper describing
Conceptual Knowledge	Remember Conceptual Knowledge • Students will identify the theoretical concepts central to the study of interpersonal, public, and organizational communication and communication behaviors that reflect those concepts. (Interpersonal and Public Communication)	 Understand Conceptual Knowledge Students will explain methodologies specific to nutrition. (Health Promotion, Education, and Behavior) Students will understand the basic model of the atom. (Introductory Chemistry) Students will explain to the non-economist the fundamental economic problem of scarcity (and tradeoffs). (Economics) Students will describe historical and contemporary approaches to the creation of art. (Art) 	Apply Conceptual Knowledge • Students will apply basic human resource management concepts and practices in new venture and small business environments. (Business Administration)	 Analyze Conceptual Knowledge Students will summarize the history of the African Diaspora and the foundations for the Atlantic trade in African captives. (History) Students will interpret similarities and differences of specific religious traditions. (Religious Studies) Students will distinguish between valid and invalid philosophical arguments. (Philosophy) Students will analyze discourse for artistic merit, practical effect, philosophical standards, and underlying structure. (Public Communication) 	 Evaluate Conceptual Knowledge Students will examine service marketing and management concepts relevant to the hospitality industry and explore how these concepts can be applied to service delivery systems. (Hospitality Administration) Students will make appropriate recommendations based on acute critical analysis. (Accounting) Students will use an appropriate analytic frame to predict the impact of policy proposals on social welfare. (Sociology) Students will evaluate and refine musical ideas. (Music) 	 Create Conceptual Knowledge Students will design a mechanical or thermal system. (Mechanical Engineering) Students will use color in visual images to create a second strand of meaning to smoothly accompany the verbal message. Images contain planned variety in hue and tone and use of color symbolism. (Visual Communication Skills) Students will develop and implement plans for improving message and information flows within organizations, the use of persuasive messages in organizations, the proper strategies for managerial communication and the techniques of team leadership. (Organizational Communication)



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Procedural Knowledge	Remember Procedural Knowledge • Students will demonstrate knowledge of each step a bill takes on its way through the legislative system. (Law)	 Understand Procedural Knowledge Students will explain the use of LeChatelier's Principle to predict the effects of concentration, pressure and temperature changes on equilibrium mixtures. (Chemistry) Students will explain the factors involved in creating a brochure. (Marketing) 	 Apply Procedural Knowledge Students will employ mathematics, science, and computing techniques in a systematic manner to support the study and solution of civil engineering problems. (Civil Engineering) Students will undertake laboratory, field and other data collection efforts using commonly used measurement techniques to support the study and solution of civil engineering problems. (Civil Engineering) Students will use examples of infections, treatment, and epidemiologic control to compare and contrast the characteristics of prions, viruses, bacteria, protozoans, and multicellular parasites. (Microbiology) Students will apply energy, momentum, constitutive equations to thermal, fluids and mechanical systems in a logical and discerning manner. (Mechanical Engineering) Students will apply techniques of scoring and arranging in a school music situation. (Music) Engineering) 	 Analyze Procedural Knowledge Students will customize a search in the library catalog, electronic databases, and the Internet using the truncation, limiters, and other advanced searching features that will narrow the results to the most relevant materials. (Library and Information Science) Students will analyze basic relationships between risk factors and outcome data using data management and statistical software. (Epidemiology and Biostatistics) Students will use a variety of statistical computing programs to analyze data from studies on health. (Biostatistics) 	 Evaluate Procedural Knowledge Students will evaluate methods of microbial control and apply the proper methods necessary when given a scenario. (Microbiology) Students will evaluate the credibility of print, online database, and Internet information using established criteria including the author's credentials, published reviews, currency, sources cited, scholarship, etc. (Library and Information Science) 	Create Procedural Knowledge • Students will design, conduct and document laboratory experiments involving biological or medical systems. (Bioengineering) • Students will design and perform laboratory experiments for thermal, fluid and mechanical systems to gather data and test theories. (Mechanical Engineering) • Given a set of guidelines, students will compose poetry which follows the constraints set out. (Poetry)



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Metacognitive Knowledge	 Remember Metacognitive Knowledge Students will identify microbiologic information of strategic importance to food microbiology. (Microbiology) Students will select appropriate graphic materials to illustrate the expressive content of the figurative form. (Art) Students will use the Science of Foods terminology in relation to discussing foods or food products. (Health Promotion, Education, and Behavior) Students will select appropriate materials for prevention and intervention. (Communication Disorders) Students will recognize the fact that solutions may sometimes require non-engineering considerations such as art and impact on society. (Mechanical Engineering) 	 Understand Metacognitive Knowledge Students will illustrate Heuristics for solving ill- defined problems in computer science. (Computer Science) Students will translate technical accounting material and terminology into terms that can be understood by a variety of audiences not trained in accounting in such a way that it meets the needs of those audiences. (Accounting). Students will identify the broad context of civil engineering problems, including describing the problem conditions, identifying possible contributing factors, and generating alternative solution strategies. (Civil Engineering) 	 Apply Metacognitive Knowledge Students will adapt a theme-based marketing strategy to Latin- American cultural norms and perceptions. (Marketing) Students will synthesize analysis results to provide constructive and creative engineering solutions that reflect social and environmental sensitivities. (Engineering) Students will communicate effectively, recognizing the needs, values, preferred mode of communication, and cultural/linguistic background of the client, family, caregivers, and relevant others. (Communication Disorders) Students will effectively communicate statistical results to persons without specialized statistical training. (Biostatistics) Students will apply knowledge of life sciences, advanced mathematics (including differential equations and statistics), physical sciences, and engineering to biological and medical systems. (Bioengineering) 	Analyze Metacognitive Knowledge • Students will describe the stereotype threat construct from Steele and Aronson's (1995) original demonstrations from the perspective of one's own behavior and its effect on personal and academic achievement. (Sociology)	 Evaluate Metacognitive Knowledge Students will select and administer appropriate evaluation procedures such as behavioral observations, non-standardized and standardized tests. (Communication Disorders) Students will engage in effective screening procedures and a review of systems for patients/clients, and accurately determine if they are appropriate candidates for physical therapy services (recognize scope and limits of practice) or if referral to or consultation with another health care professional or agency is necessary. (Physical Therapy) Students will evaluate the efficacy of different teaching strategies and classroom strategies designed for children with autism and Asperger syndrome. (Special Education) Students will critically evaluate alternate assumptions, approaches, procedures, tradeoffs, and results related to engineering problems. (Electrical Engineering) Students will identify potential bias in research reports and evaluate the likelihood that these potential biases actually explain the findings. (Epidemiology/Biostatistics) 	 Create Metacognitive Knowledge Students will develop and implement setting- appropriate intervention plans with measurable and achievable goals that meet client's needs. (Communication Disorders) Students will construct a research strategy that will lead to an effective and efficient search for the required information using a variety of appropriate print and electronic sources and based on a working knowledge of the topic gathered from preliminary, background research. (Library and Information Science) Students will identify, formulate, and solve problems at the interface of engineering and biology. (Bioengineering) Students will design algorithms for solving the protein-folding problem. (Bioinformatics) Students will develop an appropriate study design to explore a public health research question. Specifically, the student should be able to formulate testable specific aims, select an appropriate study design, critique data collection methods, and assess the potential role of bias and confounding. (Epidemiology and Biostatistics)

