ALIGNMENT CHARTS FOR ACRL INFORMATION LITERACY FRAMEWORK, INFORMATION LITERACY STANDARDS, AND VISUAL LITERACY STANDARDS

Interpreting the chart:

- This chart is NOT an equation of the old Information Literacy standards and Visual Literacy standards to the new framework, it is a CORRELATION that is meant to be adapted based on context.
- Here is how one might view and use the alignment:
    - The current standards (both information and visual literacy) are written in a way that represents the *end* goals of a set of IL and VL competencies or learning objectives
    - Some view the framework knowledge practices as *beginning* goals and *examples* for participating in a scholarly community of practice; it is not an exhaustive list of objectives
    - In that way, you can think of the chart as a *continuum* where the new framework fosters IL and VL practices beyond the standards
    - The chart helps you see where the old competencies and outcomes fit into the new construct within your context
    - Both the standards and the framework are an important part of the instructional development of IL and VL skills;
    - The standards work well in traditional instructional environments; the new framework works well for building constructivist learning environments; good teachers use a mix of approaches in the teaching and learning process, so it's likely that most teaching librarians are going to end up looking at all three when designing IL/VL programs, teaching tools, and resources.
    - Perspectives on information literacy and visual literacy are another factor here and may influence how you align these standards and frames for your own use as well as how you use this chart to develop your instruction or instructional tools.
    - In doing this mapping I realized that this is a somewhat subjective exercise. I would encourage you to review this mapping and make connections where you see them in addition to where I did. Correlations may vary depending on the context and your perspective or interpretation.

Original Framework to IL standards mapping document available here, developed by Amanda Hovious:
https://docs.google.com/document/d/1Wt5a2pYqblapfnSZoBBdo28EAgukUXbV0kdL5nSZ5UI/edit

This document was updated to reflect the newest version of the ACRL Visual Literacy Framework and mapped to ACRL visual literacy standards by Amanda Meeks; December 2, 2015.

ACRL Alignment Chart

Info Lit Framework	Info Lit Standards	Visual Literacy Standards
Authority Is Constructed and Contextual Information resources reflect their creators' expertise and credibility, and are evaluated based on the information need and the context in which the information will be used. Authority is constructed in that various communities may recognize different types of authority. It is contextual in that the information need may help to determine the level of authority required.	**Standard One** The information literate student determines the nature and extent of the information needed **Standard Three** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.	**Standard One** The visually literate student determines the nature and extent of the visual materials needed. **Standard Four** The visually literate student evaluates images and their sources.
Information Creation as a Process Information in any format is produced to convey a message and is shared via a selected delivery method. The iterative processes of researching, creating, revising, and disseminating information vary, and the resulting product reflects these differences.	**Standard Four** The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.	**Standard Five** The visually literate student uses images and visual media effectively**.**
Information Has Value Information possesses several dimensions of value, including as a commodity, as a means of education, as a means to influence, and as a means of negotiating and understanding the world. Legal and socioeconomic interests influence information production and dissemination.	**Standard Five** The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.	**Standard Seven** The visually literate student understands many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and accesses and uses visual materials ethically.

Research as Inquiry Research is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field.	**Standard One** The information literate student determines the nature and extent of the information needed **Standard Two** The information literate student accesses needed information effectively and efficiently. **Standard Three** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.	**Standard One** The visually literate student determines the nature and extent of the visual materials needed. **Standard Two** The visually literate student finds and accesses needed images and visual media effectively and efficiently. **Standard Three** The visually literate student interprets and analyzes the meanings of images and visual media.
Scholarship as Conversation Communities of scholars, researchers, or professionals engage in sustained discourse with new insights and discoveries occurring over time as a result of varied perspectives and interpretations.	**Standard Three** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system. *****Mostly New*****	**Standard Three** The visually literate student interprets and analyzes the meanings of images and visual media. **Standard Six** The visually literate student designs and creates meaningful images and visual media.
Searching as Strategic Exploration Searching for information is often nonlinear and iterative, requiring the evaluation of a range of information sources and the mental flexibility to pursue alternate avenues as new understanding develops.	**Standard One** The information literate student determines the nature and extent of the information needed. ***Standard Two (primary)** The information literate student accesses needed information effectively and efficiently. **Standard Three** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.	**Standard One** The visually literate student determines the nature and extent of the visual materials needed. **Standard Two** The visually literate student finds and accesses needed images and visual media effectively and efficiently. **Standard Three** The visually literate student interprets and analyzes the meanings of images and visual media.

ACRL Alignment Chart: Knowledge Practices - Performance Indicators -

Searching as Strategic Exploration		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**
determine the initial scope of the task required to meet their information needs;	1.1.a Confers with instructors and participates in class discussions, peer workgroups, and electronic discussions to identify a research topic, or other information need 2.1.c Investigates the scope, content, and organization of information retrieval systems	1.1.b. Defines the scope (e.g., reach, audience) and environment (e.g., academic environment, open web) of the planned image use
identify interested parties, such as scholars, organizations, governments, and industries, who might produce information about a topic and then determine how to access that information;	2.1.a Identifies appropriate investigative methods (e.g., laboratory experiment, simulation, fieldwork) 2.1.b Investigates benefits and applicability of various investigative methods	
utilize divergent (e.g., brainstorming) and convergent (e.g., selecting the best source) thinking when searching;	1.2.e Differentiates between primary and secondary sources, recognizing how their use and importance vary with each discipline 1.2.f Realizes that information may need to be constructed with raw data from primary sources 2.1.d Selects efficient and effective approaches for accessing the information needed from the investigative method or information retrieval system 2.2.a Develops a research plan appropriate to the investigative method	
match information needs and search strategies to appropriate search tools;	2.2.d Constructs a search strategy using appropriate commands for the information	1.1.a. Defines the purpose of the image within the project (e.g., illustration,

	retrieval system selected (e.g., Boolean operators, truncation, and proximity for search engines; internal organizers such as indexes for books) 2.2.e Implements the search strategy in various information retrieval systems using different user interfaces and search engines, with different command languages, protocols, and search parameters 2.2.f Implements the search using investigative protocols appropriate to the discipline	evidence, primary source, focus of analysis, critique, commentary) 2.1.a. Identifies interdisciplinary and discipline-specific image sources 2.1.e. Selects the most appropriate image sources for the current project 2.2.a. Develops a search strategy appropriate to the image need and aligned with available resources 2.2.b. Recognizes the role of textual information in providing access to image content, and identifies types of textual information and metadata typically associated with images (e.g., captions or other descriptions, personal or user-generated tags, creator information, repository names, title keywords, descriptions of visual content) 2.3.b. Accesses physical objects as needed to support the image research objective (e.g., site visits to archives, repositories, museums, galleries, libraries)
Design and refine needs and search strategies as necessary, based on search results;	2.2.a Develops a research plan appropriate to the investigative method 2.2.b Identifies keywords, synonyms and related terms for the information needed 2.2.c Selects controlled vocabulary specific to the discipline or information retrieval source 2.2.d Constructs a search strategy using appropriate commands for the information retrieval system selected (e.g., Boolean operators, truncation, and proximity for	2.2.c. Recognizes that images are often organized differently than text-based information and that this affects the way images can be accessed (e.g., absence of full-text search, variations in controlled vocabularies, lack of subject terms) 2.2.d. Identifies keywords, synonyms, and related terms for the image needed, and maps those terms to the vocabulary used in the image source

	search engines; internal organizers such as indexes for books) 2.2.e Implements the search strategy in various information retrieval systems using different user interfaces and search engines, with different command languages, protocols, and search parameters 2.2.f Implements the search using investigative protocols appropriate to the discipline 2.4.a Assesses the quantity, quality, and relevance of the search results to determine whether alternative information retrieval systems or investigative methods should be utilized 2.4.b Identifies gaps in the information retrieved and determines if the search strategy should be revised 2.4.c Repeats the search using the revised strategy as necessary 3.7.a Determines if original information need has been satisfied or if additional information is needed 3.7.b Reviews search strategy and incorporates additional concepts as necessary 3.7.c Reviews information retrieval sources used and expands to include others as needed	2.2.e. Uses images to find other images through exploration, social linking, visual search engines, or browsing 2.2.f. Performs image and topical research concurrently, with each informing the other in an iterative resource-gathering process 2.2.g. Assesses the quality, quantity, and appropriateness of images retrieved, and revises the search strategy as necessary 3.1.a. Looks carefully at an image and observes content and physical details 3.1.b. Reads captions, metadata, and accompanying text to learn about an image 4.4.b. Makes judgments about image sources based on evaluations of image and information quality
Understand how information systems (i.e., collections of recorded information) are organized in order to access relevant information;	1.2.a Knows how information is formally and informally produced, organized, and disseminated	

	1.2.b Recognizes that knowledge can be organized into disciplines that influence the way information is accessed	
Use different types of searching language (e.g., controlled vocabulary, keywords, natural language) appropriately;	2.2.b Identifies keywords, synonyms and related terms for the information needed 2.2.c Selects controlled vocabulary specific to the discipline or information retrieval source	1.1.d. Identifies key concepts and terms that describe the needed image 3.1.c. Identifies the subject of an image
Recognize that some tools may be searched using both basic and advanced strategies and understand the potential of each type of strategy;	2.2.e Implements the search strategy in various information retrieval systems using different user interfaces and search engines, with different command languages, protocols, and search parameters	
Manage searching processes and results effectively.	2.5.e Uses various technologies to manage the information selected and organized	2.3.a. Retrieves or reproduces the needed image using appropriate technologies or systems (e.g., download functions, copy and paste, scanning, cameras)
AUTHORITY IS CONSTRUCTED AND CONTEXTUAL		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**
define different types of authority, such as subject expertise (e.g., scholarship), societal position (e.g., public office or title), or special experience (e.g., participating in a historic event);	3.2.a Examines and compares information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias *(not an exact alignment)*	4.4.a. Assesses reliability and accuracy of image sources based on evaluations of authority, and point of view or bias
use research tools and indicators of authority to determine the credibility of sources, understanding the elements that might temper this credibility;	3.2.b Analyzes the structure and logic of supporting arguments or methods 3.2.c Recognizes prejudice, deception, or manipulation	3.2.b. Examines the purposes and meanings of an image in its original context 4.1.c. Critiques persuasive or manipulative strategies that may have

		been used in image production to influence interpretation 4.4.c. Critiques how an image source may create a new context for an image and thereby change its meaning
understand that many disciplines have acknowledged authorities in the sense of well-known scholars and publications that are widely considered “standard,” and yet, even in those situations, some scholars would challenge the authority of those sources;	1.2.b Recognizes that knowledge can be organized into disciplines that influence the way information is accessed 3.2.d Recognizes the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information	
recognize that authoritative content may be packaged formally or informally and may include sources of all media types;	1.2.a Knows how information is formally and informally produced, organized, and disseminated 1.2.c Identifies the value and differences of potential resources in a variety of formats (e.g., multimedia, database, website, data set, audio/visual, book) 1.2.d Identifies the purpose and audience of potential resources (e.g., popular vs. scholarly, current vs. historical)	1.1.c. Articulates criteria that need to be met by the image (e.g., subject, pictorial content, color, resolution, specific item)
acknowledge they are developing their own authoritative voices in a particular area and recognize the responsibilities this entails, including seeking accuracy and reliability, respecting intellectual property, and participating in communities of practice;	3.6.a Participates in classroom and other discussions 3.6.b Participates in class-sponsored electronic communication forums designed to encourage discourse on the topic (e.g., email, bulletin boards, chat rooms)	4.1.a. Evaluates how effectively an image achieves a specific purpose 4.1.b. Assesses the appropriateness and impact of the visual message for the intended audience 4.1.d. Evaluates the use of visual signs, symbols, and conventions to convey meaning 4.1.e. Analyzes the effect of image editing or manipulation on the meaning and reliability of the image

		4.1.f. Determines the accuracy and reliability of graphical representations of data (e.g., charts, graphs, data models) 4.1.g. Evaluates images using disciplinary criteria
understand the increasingly social nature of the information ecosystem where authorities actively connect with one another and sources develop over time.	3.6.c Seeks expert opinion through a variety of mechanisms (e.g., interviews, email, listservs)	3.4.b. Seeks expert and scholarly opinion about images, including information and analysis found in reference sources and scholarly publications 3.4.c. Informs analysis with discipline-specific perspectives and approaches
INFORMATION CREATION AS A PROCESS		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**
articulate the capabilities and constraints of information developed through various creation processes;	4.1.b Articulates knowledge and skills transferred from prior experiences to planning and creating the product or performance	1.2.c. Identifies different image and visual media types and materials (e.g., paintings, prints, photographs, born-digital images, data models)
assess the fit between an information product's creation process and a particular information need;	3.4.g Selects information that provides evidence for the topic 4.2.a Maintains a journal or log of activities related to the information seeking, evaluating, and communicating process 4.2.b Reflects on past successes, failures, and alternative strategies	3.2.d. Describes the intended audience for an image 3.3.a. Describes pictorial, graphic, and aesthetic elements of an image (e.g., color, composition, line, shape, contrast, repetition, style) 3.3.b. Identifies techniques, technologies, or materials used in the production of an image 3.3.c. Determines whether an image is an original or a reproduction 3.3.d. Examines an image for signs of editing, alteration, or manipulation (e.g.,

		cropping, color correction, image enhancements)
Recognize that information may be perceived differently based on the format in which it is packaged;	4.3.a Chooses a communication medium and format that best supports the purposes of the product or performance and the intended audience	1.2.d. Articulates ways images can be used to communicate data and information (e.g., charts, graphs, maps, diagrams, models, renderings, elevations) 6.1.a. Creates images and visual media to represent and communicate concepts, narratives, and arguments (e.g., concept maps, presentations, storyboards, posters) 6.1.b. Constructs accurate and appropriate graphic representations of data and information (e.g., charts, maps, graphs, models) 6.1.c. Produces images and visual media for a defined audience 6.1.d. Aligns visual content with the overall purpose of project
Recognize the implications of information formats that contain static or dynamic information;	4.1.a Organizes the content in a manner that supports the purposes and format of the product or performance (e.g. outlines, drafts, storyboards) 4.1.c Integrates the new and prior information, including quotations and paraphrasings, in a manner that supports the purposes of the product or performance	
Monitor the value that is placed upon different types of information products in varying contexts;	4.2.a Maintains a journal or log of activities related to the information seeking, evaluating, and communicating process 4.2.b Reflects on past successes, failures, and alternative strategies	1.1.e. Identifies discipline-specific conventions for image use 4.3.a. Evaluates information that accompanies images for accuracy, reliability, currency, and completeness

		4.3.b. Uses observation of visual content to evaluate textual information 4.3.c. Verifies information that accompanies images by consulting multiple sources and conducting research as necessary
Transfer knowledge of capabilities and constraints to new types of information products;	4.1.d Manipulates digital text, images, and data, as needed, transferring them from their original locations and formats to a new context	6.3.a. Experiments with image-production tools and technologies 6.3.b. Identifies the best tools and technologies for creating the visual product 6.3.c. Develops proficiency with a range of tools and technologies for creating images and visual media
Articulate the traditional and emerging processes of information creation and dissemination in a particular discipline;		4.2.a. Evaluates the aesthetic and design characteristics of images (e.g., use of color, composition, line, shape, contrast, repetition, style) 4.2.b. Evaluates the technical characteristics of images (e.g., resolution, size, clarity, file format) 4.2.c. Evaluates the quality of image reproductions, based on indicators such as color accuracy, resolution, manipulation levels, and comparison to other reproductions 5.2.a. Uses appropriate editing, presentation, communication, storage, and media tools and applications to prepare and work with images 5.2.b. Determines image file format, size, and resolution requirements for a project, and converts images accordingly

		5.2.c. Edits images as appropriate for quality, layout, and display (e.g., cropping, color, contrast)
Develop, in their own creation processes, an understanding that their choices impact the purposes for which the information product will be used and the message it conveys.	4.3.a Chooses a communication medium and format that best supports the purposes of the product or performance and the intended audience 4.3.b Uses a range of information technology applications in creating the product or performance 4.3.c Incorporates principles of design and communication 4.3.d Communicates clearly and with a style that supports the purposes of the intended audience	3.2.c. Explores choices made in the production of an image to construct meaning or influence interpretation (e.g., framing, composition, included or excluded elements, staging) 5.1.a. Plans for strategic use of images and visual media within a project 5.1.b. Selects appropriate images and visual media aligned with a project's purpose 5.1.c. Integrates images into projects purposefully, considering meaning, aesthetic criteria, visual impact, and audience 5.1.d. Uses images for a variety of purposes (e.g., as illustrations, evidence, visual models, primary sources, focus of analysis) 5.1.e. Uses images for subject-specific and interdisciplinary research, communication, and learning 5.3.a. Experiments with different ways of integrating images into academic work 5.3.b. Uses visual thinking skills to clarify and solve problems 6.2.a. Plans visual style and design in relation to project goals 6.2.b. Uses aesthetic and design choices deliberately to enhance effective communication and convey meaning

		6.2.c. Uses creativity to incorporate existing image content into new visual products
INFORMATION HAS VALUE		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**
Give credit to the original ideas of others through proper attribution and citation;	5.3.a Selects an appropriate documentation style and uses it consistently to cite sources 5.3.b Posts permission granted notices, as needed, for copyrighted material	7.3.a. Gives attribution to image creators in citations and credit statements to acknowledge authorship and author rights
Understand that intellectual property is a legal and social construct that varies by culture	5.2.b Uses approved passwords and other forms of ID for access to information resources 5.2.c Complies with institutional policies on access to information resources 5.2.d Preserves the integrity of information resources, equipment, systems and facilities 5.2.e Legally obtains, stores, and disseminates text, data, images, or sounds 5.2.f Demonstrates an understanding of what constitutes plagiarism and does not represent work attributable to others as his/her own	7.1.b. Develops familiarity with typical license restrictions prescribing appropriate image use 7.2.a. Identifies institutional (e.g., museums, educational institutions) policies on access to image resources, and follows legal and ethical best practices
Articulate the purpose and distinguishing characteristics of copyright, fair use, open access, and the public domain;	5.1.d Demonstrates an understanding of intellectual property, copyright, and fair use of copyrighted material	7.1.a. Develops familiarity with concepts and issues of intellectual property, copyright, and fair use as they apply to image content 7.2.b. Tracks copyright and use restrictions when images are reproduced, altered, converted to different formats, or disseminated to new contexts

Understand how and why some individuals or groups of individuals may be underrepresented or systematically marginalized within the systems that produce and disseminate information;	5.1.c Identifies and discusses issues related to censorship and freedom of speech 5.2.g Demonstrates an understanding of institutional policies related to human subjects research	3.2.a. Describes cultural and historical factors relevant to the production of an image (e.g., time period, geography, economic conditions, political structures, social practices) 3.2.e. Explores representations of gender, ethnicity, and other cultural or social identifiers in images 7.1.e. Explores issues surrounding image censorship
Recognize issues of access or lack of access to information sources;	5.1.b Identifies and discusses issues related to free vs. fee-based access to information	2.1.c. Recognizes how the image search process is affected by image rights and use restrictions
Decide where and how their information is published;	4.3.a Chooses a communication medium and format that best supports the purposes of the product or performance and the intended audience	7.1.c. Recognizes one's own intellectual property rights as an image creator 7.2.c. States rights and attribution information when disseminating personally created images
Understand how the commodification of their personal information and online interactions affects both the information they receive and the information they produce or disseminate online;	5.1.a Identifies and discusses issues related to privacy and security in both the print and electronic environments	7.1.d. Identifies issues of privacy, ethics, and safety involved with creating, using, and sharing images
Make informed choices regarding their online actions in full awareness of issues related to privacy and the commodification of personal information.	5.2.a Participates in electronic discussions following accepted practices (e.g. "Netiquette")	
RESEARCH AS INQUIRY		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**

Formulate questions for research based on information gaps or reexamination of existing, possibly conflicting, information;	1.1.b Develops a thesis statement and formulates questions based on the information need	
Determine an appropriate scope of investigation;	1.1.c Explores general information sources to increase familiarity with the topic 1.1.d Defines or modifies the information need to achieve a manageable focus	1.2.a. Explores image sources to increase familiarity with available images and generate ideas for relevant image content 1.2.b. Investigates the scope, content, and potential usefulness of a range of image sources and formats (e.g., digital, print, subscription databases, open web, books or articles, repositories, personal creations)
Deal with complex research by breaking complex questions into simple ones, limiting the scope of investigation, conducting a series of investigations, and performing subsequent steps;	1.1.e Identifies key concepts and terms that describe the information need 1.1.f Recognizes that existing information can be combined with original thought, experimentation, and/or analysis to produce new information 2.1.a Identifies appropriate investigative methods (e.g., laboratory experiment, simulation, fieldwork) Investigates benefits and applicability of various investigative methods 2.1.b Investigates the scope, content, and organization of information retrieval systems 2.1.c Selects efficient and effective approaches for accessing the information needed from the investigative method or information retrieval system	3.1.e. Recognizes when more information about an image is needed, develops questions for further research, and conducts additional research as appropriate
Use a variety of research methods, based on need, circumstance, and type of inquiry;	2.2.a Develops a research plan appropriate to the investigative method	2.1.b. Articulates the advantages and disadvantages of various types of image sources and retrieval systems

	2.3.a Uses various search systems to retrieve information in a variety of formats 2.3.b Uses various classification schemes and other systems (e.g., call number systems or indexes) to locate information resources within the library or to identify specific sites for physical exploration 2.3.c Uses specialized online or in person services available at the institution to retrieve information needed (e.g., interlibrary loan/document delivery, professional associations, institutional research offices, community resources, experts and practitioners) 2.3.d Uses surveys, letters, interviews, and other forms of inquiry to retrieve primary information	2.1.d. Uses specialized online or in-person services to select image sources (e.g., online research guides, image and reference librarians, curators, archivists, disciplinary experts)
Monitor gathered information and assess for gaps or weaknesses;	2.4.b Identifies gaps in the information retrieved and determines if the search strategy should be revised	3.4.a. Evaluates how effectively an image achieves a specific purpose
Organize information in meaningful ways;	2.5.b Creates a system for organizing the information 2.5.e Uses various technologies to manage the information selected and organized	2.3.c. Organizes images and the information that accompanies them for personal retrieval, reuse, and scholarly citation
Synthesize ideas gathered from multiple sources;	3.3.a Recognizes interrelationships among concepts and combines them into potentially useful primary statements with supporting evidence 3.3.b Extends initial synthesis, when possible, at a higher level of abstraction to construct new hypotheses that may require additional information	1.2.e. Recognizes that existing images can be modified or repurposed to produce new visual content 3.1.d. Examines the relationships of images to each other and uses related images to inform interpretation

	3.3.c Utilizes computer and other technologies (e.g. spreadsheets, databases, multimedia, and audio or visual equipment) for studying the interaction of ideas and other phenomena	
Draw reasonable conclusions based on the analysis and interpretation of information	3.4.c Draws conclusions based upon information gathered 3.4.d Tests theories with discipline-appropriate techniques (e.g., simulators, experiments) 3.4.e Determines probable accuracy by questioning the source of the data, the limitations of the information gathering tools or strategies, and the reasonableness of the conclusions	5.4.a. Writes clearly about images for different purposes (e.g., description, analysis, evaluation)
SCHOLARSHIP AS CONVERSATION		
Knowledge Practices	**Performance Indicators**	**Learning Outcomes**
Cite the contributing work of others in their own information production;	3.4.f Integrates new information with previous information or knowledge	7.3.b. Includes source information in citations and credit statements so visual materials can be reliably found and accessed by other scholars and researchers 7.3.c. Cites visual materials using an appropriate documentation style
contribute to scholarly conversation at an appropriate level, such as local online community, guided discussion, undergraduate research journal, conference presentation/poster session;	3.6.a Participates in classroom and other discussions 3.6.b Participates in class-sponsored electronic communication forums designed to encourage discourse on the topic (e.g., email, bulletin boards, chat rooms)	5.4.b. Presents images effectively, considering meaning, aesthetic criteria, visual impact, rhetorical impact, and audience 5.4.c. Discusses images critically with other individuals, expressing ideas, conveying meaning, and validating arguments

		5.4.d. Includes textual information as needed to convey an image's meaning (e.g., using captions, referencing figures in a text, incorporating keys or legends) 5.4.e. Reflects on the effectiveness of own visual communications and use of images
Identify barriers to entering scholarly conversation via various venues;		
Critically evaluate contributions made by others in participatory information environments;	3.5.b Determines whether to incorporate or reject viewpoints encountered	6.4.a. Evaluates personally created visual products based on project goals 6.4.b. Evaluates personally created visual products based on disciplinary criteria and conventions 6.4.c. Reflects on the role of personally created visual products as a meaningful contribution to research, learning, or communication 6.4.d. Validates personally created visual products through discourse with others 6.4.e. Revises personally created visual products based on evaluation
Identify the contribution that particular articles, books, and other scholarly pieces make to disciplinary knowledge;		
Summarize the changes in scholarly perspective over time on a particular topic within a specific discipline; and	3.5.a Investigates differing viewpoints encountered in the literature	
Recognize that a given scholarly work may not represent the only—or even the majority—perspective on the issue at hand.		