Visual Literacy Synthesized: A Content Analysis of Syllabi to Build a Better Visual Literacy Course

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Introduction

Visual communication, such as the cave paintings at Lascaux, has existed throughout the course of human existence, serving as a means of expression long before written forms of language.[1] Today, communicating visually continues to be of vital importance. Humans process images faster than text, have the ability to better recall what is seen over what is read, and can understand images in a global context when words are lost in a particular language.[2]

As stated in ACRL's *Visual Literacy Competency Standards for Higher Education*, our society is now highly visual and "visual imagery is no longer supplemental to other forms of information."[3] This new form of literacy "empowers individuals to participate fully in a visual culture."[4] The term *visual literacy* encompasses a number of cognitive skills for both evaluating existing and generating new visual communication. For literacy to be achieved, ethical and legal ramifications must be understood and applied when creating new or using existing visual content. For full participation as a visual literate individual, affective learning experiences should also be explored.

This paper implements a content analysis approach to examine syllabi of existing visual literacy and media literacy courses for themes that meet best practices as established by the ACRL standards. These themes have then been combined into a syllabus template representative of a course that will meet the commonly accepted needs of contemporary students in higher education. The template includes recommended readings and assignments.

Review of the Literature
Visual Language

Two principal functional components comprise the ability to understand the nature of visual literacy: its theoretical basis and the underlying language through which messages are communicated visually. Appreciating how visual communication coincides with and may possibly supersede development of verbal communication allows not only deeper comprehension of its natural similarities and differences from spoken language but also opens additional learning opportunities in this field.

People learn, think, and express themselves visually, and the language of communicating visually develops prior to or in parallel with the ability to communicate verbally.[5] Further, these three core actions form the basis of literacy through the development of a visual language.[6] A visual language is receiver-oriented, which is based on an individual's relation to visual stimuli.[7] Further, visual language is holistic in that it impacts both the cognitive and affective realms and is simultaneously precise yet flexible to its receiver.[8] Although building a visual language relies upon sight, the other senses play important roles.[9] As a result, this complex mix prevents the universality of

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visual language;[10] thus, visual language depends upon the richness, diversity, and interaction with stimuli for each individual.[11] Ultimately, visual language and visual literacy, in turn, can be taught, learned, and re-developed over time.[12]

Educational Frameworks

Language and literacy improve in a social context through lived experiences;[13] thus, active processing of information results in learning.[14] Social constructivism views education through an individual's surroundings; it naturally provides a lens through which visual literacy may be examined.[15] In the context of studying visual media, working in peer groups permits deeper analysis, which results in more accurate, thoughtful interpretations.[16] Literacy results from the formation of meaning from building blocks,[17] and as a result, social information gathering leads to individual thinking and the building of literacies beyond core understanding.[18]

Cognitive learning outcomes often overshadow affective ones because they present greater challenges to define, put into effect, and measure, particularly because they are often longer-term processes.[19] Defining and understanding the affective domain has its roots in social constructivist theory,[20] and student development of self-awareness of emotions and attitudes in a social context enhances learning.[21] For example, anxiety about learning directly relates to the ability to cope and perform effectively in education.[22] To help offset the challenges of assessing affective learning outcomes, the widely-accepted ABCD model of developing educational assessment focuses on the behaviors of students being assessed; thus, through anonymous, clear, and simple methods, the affective domain can be monitored more easily.[23]

Teaching Visual Literacy

Visual literacy is not an innate ability even among digital natives who have grown up in a highly visual, multimedia culture.[24] These skills, however, can be developed through focus on understanding deeper meanings in a process of building visual competence and intelligence.[25] Visual competence and intelligence provide two separate but similar methods for guiding the process of developing literacy. Visual competence takes a subjective, qualitative approach to interpreting visual messages in a four-step process through production, perception, interpretation, and reception.[26] Visual intelligence focuses on the learner finding covert messages in visuals and considering the impact of those messages.[27]

Although it stems from the disciplines of art, philosophy, linguistics, and psychology, putting visual literacy instruction into practice requires a concentration on it as a specific subject and not an incidental attribute of teaching in another field.[28] Its breadth allows both of Bloom's cognitive and affective taxonomies to be applied to outcome development, but Hattwig further supplies a seven-item array based on the ACRL visual literacy standards (defining needs, finding, interpreting/analyzing, evaluating, effective use, creating, and ethical use) through which learning outcomes may be specifically developed.[29] Regardless of the method for developing them, effective visual literacy instruction is tied directly to solid learning outcomes being taught and assessed iteratively.[30]

Methods

To develop a visual literacy course syllabus that addresses the most significant needs of a common undergraduate audience, we applied a content analysis method to examining twenty-eight publicly available undergraduate syllabi for courses focusing on visual literacy, the majority of which had been offered in the last five years. For this content analysis, we concentrated on the following aspects of the available syllabi: course descriptions, textbooks/readings, assignments, and learning outcomes. These syllabi originated from a variety of disciplines including art, communications, and education. In a first pass, we searched for common features of the syllabi, particularly for those items found in multiple places to answer the following research question:

RQ1 What common elements are found in undergraduate visual literacy courses?

TABLE 1
Ten Most Frequent Words in Course Descriptions (n=28)

Word	Frequency
Communication	22
Design	20
Theory	13
Art	10
Understand	10
Rhetoric	10
Film	8
Photography	8
Message	7
Critically	6

TABLE 2
Ten Most Frequent Words in Course Learning Outcomes (N=23)

Word	Frequency
Art	41
Design	32
Culture	28
Develop	25
Understand	24
Communication	20
Analyze	15
Context	14
Message	12
Create	12

Applying tools available in the online textual analysis application TAPoRware, we sought frequently occurring words. For our second pass, we attempted to answer the following research questions in order to assemble a master syllabus that not only meets the needs of contemporary undergraduate students but also follows established standards of learning outcome development.

> **RQ2 How do current syllabi apply Bloom's cognitive and affective taxonomies to learning outcomes?**
>
> **RQ3 How are ACRL's visual literacy standards reflected in current syllabi?**

Using the findings from these final two questions, we applied learning outcomes and standards to a final syllabus reflective of current essential skills for visual literacy.

Results

The following four tables address RQ1, demonstrating the common elements of all syllabi. Table 1 indicates the most frequently found words in course descriptions through the use of TAPoRware's List Words tool with stop words removed and stemming activated. Beyond a list of standard stop words, additional words and their stems were removed because these terms would reasonably be expected to occur frequently in a syllabus related to visual literacy: visual, student, course, literacy, image, media, work, learn, idea, skill, graphic, study, class, project, information. Similarly, table 2 lists the ten most frequently found words in the collective syllabi's learning outcomes.

TABLE 3
Readings that Appear in at Least Two of the Coded Syllabi

Title	Author(s)	# of Syllabi
CMS-based Readings	Various/Unknown Authors	9
On Photography	Susan Sontag	4
Ways of Seeing	John Berger	4
Visual Communication: Images with Messages	Paul Martin Lester	3
Media and Society	Michael O'Shaughnessy and Jane Stadler	2
The Non-Designer's Design Book	Robin Williams	2
Practices of Looking: An Introduction to Visual Culture	Marita Sturken and Lisa Cartwright	2
Understanding Comics: The Invisible Art	Scott McCloud	2

TABLE 4
Summary of Assignment Types in Coded Syllabi

Assignment Type (Detailed Type)	# for Syllabi
Long-term Project	9
Project – Artifact Creation	1
Project – Analysis	2
Project – Maps and Signage	1
Project – Production	1
Project – Unspecified	3
Project – Visual Art	1
Paper	8
Class Blog	3
Presentation	3
Image Creation	2
Infographic Creation	2
Mapping a Story	2
Video	2
Visual Document	2
Weekly Mini Projects	2
Data Visualization	1
Portfolio	1
Rhetorical Analysis	1

TABLE 5
Frequency of Bloom's Cognitive Domain Verbs in Learning Outcomes

Cognitive Verbs	Frequency
Design	28
Develop	22
Analyze	14
Create	12
Apply	8
Demonstrate	8
Use	7
Critique	6
Compare	4
Discuss	4
Practice	4
Produce	4
Examine	3
Express	3
Interpret	3
Value	3
Define	2
Evaluate	2
Explain	2
Recognize	2
Solve	2
Synthesize	2
Translate	2

Table 3 offers a list of readings that appear in more than one syllabus. Table 4 includes a summary of assignments that appear in the syllabi.

To determine a relationship between Bloom's cognitive and affective domains and learning outcomes and address RQ2, we compared the corpus of learning outcomes to two lists of verbs related to the domains that were compiled from reviewed sources.[31] Table 5 presents a frequency list of cognitive-related verbs, and table 6 features affective-related verbs found in the syllabi. An asterisk indicates an affective verb that is not also found in the cognitive list.

Table 7 addresses RQ3 by indicating the number of syllabi meeting each standard in the ACRL Visual Literacy Competency Standards document.

Discussion and Conclusion

RQ1 inquired which elements were commonly occurring among the syllabi. For those examined, the themes of communication, design, art, culture, and message appear frequently within course descriptions and learning outcomes. The actions of understanding, developing, analyzing, and creating reoccur frequently, as well. These lists indicate that the existing syllabi capture the bidirectional nature of visual literacy in that students should be expected to both consume and generate visual works from a critical viewpoint. Further, all of this occurs in a social context in which an individual's culture is both influenced by and influences these communication-centric processes.

The common readings amongst the syllabi additionally support the idea that visual literacy is recognized as a social constructivist endeavor. Sontag

TABLE 6
Frequency of Bloom's Affective Domain verbs in learning outcomes

Affective Verbs	Frequency
Develop	22
Discuss	4
Order*	4
Practice	4
Examine	3
Help*	3
Support*	3
Recognize	2
Assist*	1
Complete*	1
Display*	1
Play*	1
Respond	1

paints photography as a communicative link between past and present that tells a story visually through its selection of subject, atmosphere, and editing.[32] The premise of Berger's book captures the social aspect of art and visual advertising as constructed through each observer's personal experience.[33] The other selections collectively demonstrate the use of visual images to communicate ideas to other people beyond the cre-

ator of a work through both an understanding of incoming messages and best practices for developing outgoing ones.

With long-term group projects, class blogs, and presentations, the common assignments further promote a social aspect of visual literacy; however, a number of assignments such as papers and small-scale tasks point to individualistic creation and consumption. Likely, these individual assignments would be shared with classmates, but the profusion of papers amongst visual products may be interpreted as either out-of-place in a course focusing on the visual or rather a narrative outlet for what can only be explained through words. Additionally, the need for submitting papers could be related to a curricular requirement and are thus unavoidable.

RQ2 asked how verbs related to Bloom's cognitive and affective taxonomies were used in the coded syllabi. The syllabi used over twenty distinct verbs related to cognitive functions, in particular those supporting the bidirectional, socially influenced context of visual literacy: design, develop, analyze, and create. The abundance of cognitive verbs comes as little surprise as cognitive outcomes prove far simpler to assess.[34] The syllabi provided a total thirteen affective verbs, seven of which were unique to an affective context: order, help, support, assist, complete, display, and play.

TABLE 7
Number of Syllabi Including ACRL *Visual Literacy Competency Standards* within Course Descriptions, Learning Outcomes, or Assignments (n=28)

Standards	# of Syllabi
1. **Defining Needs**: The visually literate student determines the nature and extent of the visual materials needed.	0
2. **Finding**: The visually literate student finds and accesses needed images and visual media effectively and efficiently.	4
3. **Interpreting/Analyzing**: The visually literate student interprets and analyzes the meanings of images and visual media.	25
4. **Evaluating**: The visually literate student evaluates images and their sources.	18
5. **Effective Use**: The visually literate student uses images and visual media effectively.	5
6. **Creating**: The visually literate student designs and creates meaningful images and visual media.	17
7. **Ethical Use**: 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.	16

The overall lack of affective verbs indicates less emphasis on developing this aspect of learning than the cognitive realm. Further contextual analysis would help to determine how the other six verbs are used. This underutilization of affective outcomes likely relates to their difficulty to be evaluated quantitatively.

RQ3 looks at how the syllabi reflect the ACRL's established standards for competency in visual literacy (Appendix 2). We found twenty-five instances of standard three, which addresses interpretation and analysis of visuals. In particular, this standard was represented through references to "semiotics" and "critical thinking". Standard four had eighteen instances, which was identified through terms such as "persuasion" and "influence". Standard six focuses on creation of visual media with seventeen occurrences, identified through "create", "produce", and references to specific software such as Photoshop. Standard seven was found sixteen times, discovered through mentions in a social, ethical, or cultural context.

Three of the standards were underrepresented. Standard one discusses a student's ability to define the need for visual materials, and it was not found in any of the syllabi. This is likely due to faculty supplying the images necessary to achieve later standards. Relatedly, standard two asks learners to find and access images, and it was found only four times. Standard five had five instances of effective use, and the limiting factor likely relates to the nature of the syllabi chosen not sufficiently covering the standard clearly, although references to this standard are implicit throughout the others.

Considering the findings of the three research questions posed, we created a draft master syllabus for an undergraduate course that captures the best of what has been discovered. This widely scoped document is intended for use in any subject-specific curriculum or for a library-led effort for teaching visual literacy. The full syllabus may be found in Appendix 3.

This investigation revealed several limitations of the source material for comparison, in particular the ACRL *Visual Literacy Competency Standards*. First,

standard seven focuses on "ethical, legal, social, and economic issues"; however, the subsequent performance indicators intended to support the primary language of the standard fail to address themes beyond ethical use in terms of copyright and attribution. To improve this standard, a greater focus should be placed on cultural and social aspects, including but not limited to social justice, gender, and ethnicity. Second, the ACRL standards, just as the syllabi, lack affective outcomes compared to the number of cognitive outcomes. Only the fourth performance indicators in standards three, four, five, and six feature elements that can be clearly construed to be affective in nature. To close this gap, greater emphasis needs to be placed on incorporating affective standards more evenly throughout the document.

This study is not without limitations in its scope and analysis. First, we utilized the web to discover syllabi, which required them to be publicly available. We initially had expected to find a greater number of syllabi with a greater level of detail available. Further, many of the detailed assignments featured were locked behind course management systems that require a username and password for access. An additional limiting factor is that a content analysis relies upon the researchers' individual interpretations to develop arguments. In this study, we were limited by the two of us performing the analysis without a test using Krippendorff's alpha to confirm the reliability of findings.

In conclusion, visual literacy provides a platform for bringing together various disciplines to a common cause in helping students engage and understand the cultures in which they live. Existing course syllabi provide a strong basis upon which to educate undergraduates, but synthesizing the elements of these courses offers a more effective common ground from which to start. Future research will confirm the validity and usefulness of our master syllabus as well as providing greater depth of understanding through surveys or interviews of why faculty make specific choices for their syllabi.

Appendix 1. List of Syllabi Coded

#	Institution	Department/ Course Title	Year Offered	URL
1	Ringling College of Art and Design	Communication Design	2008/2009	http://webspace.ringling.edu/~ccjones/curricula/08-09/commdesign/CDsyllccj.pdf
2	Keene State College	Communications/ Visual Rhetoric	2010	http://commons.keene.edu/cgi/viewcontent.cgi?article=13121&context=syllabi
3	Midwestern State University	English/ Rhetoric of Visuals and Infographics	Not available	http://www.mwsu.edu/Assets/documents/student-life/provost/Core-Curriculum/ENGL-2123/Course%20Syllabus.pdf
4	St. John Fisher College	English Visual Rhetoric	Not available	http://home.sjfc.edu/english/courses/Nichols380.doc
5	University of Minnesota Duluth	Writing/Visual Rhetoric and Culture	2011	http://www.d.umn.edu/~cstroupe/f11/4260/syllabus.html
6	George Mason University	Art and Visual Technology/Visual Thinking	2012	http://soa.gmu.edu/academics/Fall%20syllabi%202012/204%20VisualThinkingVanLaven.pdf
7	Barry University	Communications/ Visual Rhetoric	2014	http://www.cubanxgiants.com/berry/270/
8	McDaniel College	Communication/ Visual Communication	2010	https://www2.mcdaniel.edu/rtrader/viscom/
9	University of Louisiana at Monroe	Communication/ Visual Literacy	Not available	http://webcache.googleusercontent.com/search?q=cache:INcY--ypXhEJ:https://webservices.ulm.edu/flightpath/course-search/get-syllabus%3Fid%3D6641677+&cd=1&hl=en&ct=clnk&gl=us
10	University of Louisiana at Monroe	Mass Communication/ Visual Communication	Not available	http://ulm.edu/~kauffman/assets/4071-generic-syllabus.pdf
11	University of North Carolina/Greensboro	Interior Architecture/Visual Communications II	2002	http://www.abouthalf.com/class_site/syllabus.html
12	University of Florida	Journalism and Communications Public Relations/ Public Relations Visual Communication	2013	http://www.jou.ufl.edu/assets/syllabi/PUR4103_S13_Tappan.pdf
13	Ohio University	Visual Communication/ Introduction to Visual Communication	2011	http://www.shanetilton.com/wp-content/uploads/2011/09/syllabus_VICO_120_2011_Fall.pdf

Appendix 1. List of Syllabi Coded (continued)

#	Institution	Department/ Course Title	Year Offered	URL
14	University of Utah	Communications/ Principles of Visual Communication	2013	http://communication.utah.edu/students/ undergraduate/current-requirements/ sample_syllabi/COMM_3550_Spring_2013. pdf
15	American University	Communication/ Visual Literacy	2011	http://scannonbrown.files.wordpress. com/2011/01/syllabus-022211.pdf
16	Simmons	Library and Information Science/Visual Communication	2013	http://web.simmons.edu/~benoit/lis470/ VisComm-F13.pdf
17	University of California, Santa Barbara	Art/Visual Literacy	2012	http://chrissilva.net/syllabus/art1a_course_ info_f.pdf
18	California State University, Northridge	Art/Developing Visual Literacy	Not available	http://www.csun.edu/~vcarg005/400.pdf
19	Cornell University	Design and Environmental Analysis/Visual Literacy and Design	2012	https://courses.cit.cornell.edu/dea1101/ layouts/1101_0.html
20	University of Oregon	AAD, Art & Visual Literacy	2012	http://aaablogs.uoregon.edu/aad251online- dturner/files/2012/01/AVL.O.W12.Syllabus. pdf
21	University of Northern Iowa	Communication/ Media Literacy	2013	http://www.uni.edu/fabos/ml/medialit.html
22	McMaster University	Art History/ Communication Studies and Multimedia Visual Literacy	2013	http://sota.mcmaster.ca/courses/2012-13/ Term2/ART%20HIST%202A03%20CMST%20 2I03%20WINTER%202013.pdf
23	American University	Communications	2012	http://auvisualliteracy2012.wordpress.com/ syllabus/
24	Bucks County Community College	Department of the Arts/Visual Literacy	2012	http://www.bucks.edu/academics/courses/ syllabus/?lookup=VAGD200
25	James Madison University	Learning, Technology, and Leadership Education/Visual Literacy	2012	http://coe.jmu.edu/ncate/UpdatedSyllabi/ LTLE/Spring2012/LTLE372_Estes_ Spring2012.pdf
26	University of Tampa	Communications/ Visual Literacy	2015	http://www.julietdavis.com/COM232/ COM232.pdf
27	Not available A	Communication/ Visual Literacy	2010	http://vislit7.blogspot.com/2010/08/ syllabus-tuesdaythursday-class.html
28	Not available B	Media Literacy	Not available	http://www.philiprahnhopper.net/media- literacy-syllabus/

Appendix 2. Application of ACRL Visual Literacy Competency Standards to Syllabi

Standard Two: The visually literate student finds and accesses needed images and visual media effectively and efficiently.

- "To illustrate engagement with the course, each student will assemble a scrapbook of examples and comments that will be collected two times." (Utah)
- Researching media images for a video project (Northern Iowa)
- "Intellectual content includes: …Principles of selection" (James Madison)
- "researching … visual information and arguments" (Midwestern State University)

Standard Three: The visually literate student interprets and analyzes the meanings of images and visual media.

- "emphasize… sign, symbol, metaphor" (Ringling College of Art and Design)
- "enhance the ability of students to critically see, [and] think" (Keene State College)
- "critically examine and evaluate visual information and the sources of this information" (Midwestern State University)
- "think about how images are designed to persuade" St. John Fisher College
- "interpretive and strategic skills to critically .. think about.. visual texts" (University of Minnesota Duluth)
- "learn evaluative and interpretive principles" (George Mason University)
- "Know how to study and decipher images for their textual meaning" (Barry University)
- "Improving critical thinking" McDaniel College
- "discuss, analyze, and explain the visual aspects of specific artifacts" (University of Louisiana at Monroe)
- "Learn to analyze and critique visual messages" (University of Louisiana at Monroe)
- "learn how to interpret visual representations" (University of Florida)
- "analyze visual messages" (Ohio University)
- "critically analyze a visual media artifact" (University of Utah)
- "semiotics" "understand visual information resources" (Simmons)
- "explore the 'language of' and the 'language about' contemporary and historical visual culture" (University of California, Santa Barbara)
- "explore ways of looking at, and responding to both fine art and visual culture" (California State University, Northridge)
- "critical thinking" (Cornell University)
- "interpreting visual information" (University of Oregon)
- "semiotics—the meaning behind media messages" (University of Northern Iowa)
- "understanding … visual images" and "Critically analyze creative works" (American University)
- "symbol and identity development" and "apply visual thinking techniques" (Bucks County Community College)
- "interpret, and compare images" (James Madison University)
- "analyze visual rhetoric, begin to see critically, articulate meaning" (University of Tampa)
- "to learn to 'read' visual images" (Not Available A)
- "develop an understanding of the visual message" (Not Available B)

Standard Four: The visually literate student evaluates images and their sources.
- "critically examine and evaluate visual information and the sources of this information" (Midwestern State University)
- "think about how images are designed to persuade" (St. John Fisher College)
- "learn evaluative and interpretive principles necessary for the communication of ideas through visual imagery" (George Mason University)
- "uses images to ask questions about vision and seeing, power, spectatorship, reality and other aesthetic concerns" (Barry University)
- "examines the connection between visual images and persuasion" (University of Louisiana at Monroe)
- "Gain and understanding of the physiological and cognitive aspects of seeing" (University of Louisiana at Monroe)
- "exploration into the idea that memorable visual messages with text have the greatest power to inform, educate and persuade an individual." (University of Florida)
- "exploration into the idea that memorable visual messages with text have the greatest power to inform, educate and persuade an individual." (Ohio University)
- "Indicate why the author chose or manipulated the color of each image." (University of Utah)
- "topics may include … propaganda" (Simmons)
- "shaping influence of technological, social, political and cultural contexts" (University of California, Santa Barbara)
- "analyze, interpret, and critique the artwork of others" (California State University, Northridge)
- "Investigate a number of disciplinary perspectives including painting, typography, mathematics, engineering, architecture, product design, and interiors in the studio projects." (Cornell University)
- "interpreting, and assessing designed visual information within socio-cultural contexts" (University of Oregon)
- "develop an understanding of how … media content influences us." (University of Northern Iowa)
- "integrate psychological and cultural inferences into graphic design solutions" (Bucks County Community College)
- "applying theories of mediated communication, historical knowledge, and social norms." (James Madison University)
- Develop an understanding of ideology in the context of our media system. (Not Available
- B)

Standard Five: The visually literate student uses images and visual media effectively.
- "write about visual texts" (University of Minnesota Duluth)
- "Improving visual communication." (McDaniel College)
- Major assignment to collect and write about images that illustrate certain principals learned in class. (University of Utah)
- Final project that demonstrates use of images to convey an understanding of visual communication. (Simmons)
- "learn to tell stories in graphic design—and present them in print and on the web" (University of Florida)

Standard Six: The visually literate student designs and creates meaningful images and visual media.
- "produce a new artifact of visual rhetoric" (Keene State College)

- "…creating, and presenting visual information" (Midwestern State University)
- "In Photoshop, create an image that visually summarizes and analyzes a complex idea, theory, or extended narrative." (University of Minnesota Duluth)
- "Develop skill in producing visual messages." (University of Louisiana at Monroe)
- "Feel more confident with graphic design software." "Demonstrate improved design and software skills." "Have a print and web portfolio" (University of North Carolina/Greensboro)
- "create visual … communications… Emphasis is placed on learning the standardized industry software, Adobe InDesign CS6, Adobe Photoshop CS6, and Adobe Dreamweaver CS6, to produce fliers, logos, brochures and websites." (University of Florida)
- "produce high quality visual messages" (Ohio University)
- "complete a portfolio piece (magnum opus)… You will showcase this portfolio piece and other examples of your work—including visual designs, photography, short films/videos and critical analyses" (American University)
- "…produce something representing visual communication" (Simmons)
- "Students will create "showcase" art and art education portfolios which demonstrate their traditional and digital art skills." (California State University, Northridge)
- "generating specific personal design resolutions to classroom design tasks" (Cornell University)
- "Develop some media skills (Photoshop and video editing)." (University of Northern Iowa)
- "final portfolio project and other examples of your work including photography, visual design, short films/videos" (American University)
- "generate an appropriate style and character to produce a graphic image" (Bucks County Community College)
- "Create visual and multimedia compositions" (James Madison University)
- "Create thought provoking visual imagery" (University of Tampa)
- "Develop some media skills" (Photoshop and video editing) (Not Available B).

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.

- "Begin to demonstrate an ability to understand concepts of visual literacy and communication from an ethical and cross-cultural perspective." (Ringling College of Art and Design)
- "The purpose of the course is to enhance the ability of students to critically see, think, write, and in other ways create new artifacts of visual rhetoric that make life more livable for us all." (Keene State College)
- "…understand many of the ethical, legal, cultural, and economic issues that impact the creation, interpretation, and use of visual messages" (Midwestern State University)
- "Learn a grammar and ethics of seeing and of producing visual messages." (Barry University)
- "you will analyze visual communications from cultural, ethical, and omniphasic perspectives" (University of Florida)
- "Critical analysis methods and ethical implications of electronic and print media images will be discussed." (University of Utah)
- "To challenge students in their understanding of the social, cultural, and political context in which visual images are used to achieve a variety of goals." (American University)
- "engaging a set of related cultural issues that have to do with who we are and how we process our world (in terms of both western and nonwestern paradigms)" (University of California, Santa Barbara)

- "We can now see that the multiple contexts of social, cultural, psychological, and aesthetic concerns shape the meanings of visual phenomena. (University of Oregon)
- "Develop an understanding of the media in terms of its representation of gender and ethnicity." "Develop an understanding of our commercial culture" "…you should not use ANY MUSIC THAT IS COPYRIGHTED" (University of Northern Iowa)
- "Understand ethics as a latent part of aesthetic appreciation of design." (Cornell University)
- "increasing student awareness of the impact of visual images upon our understanding of 'self' and the world around us" (McMaster University)
- "Understand how and by whom aesthetic value judgments have been made historically, esp. in terms of gender, race" (American University)
- "integrate psychological and cultural inferences into graphic design solutions" (Bucks County Community College)
- "Create visual and multimedia compositions, applying theories of mediated communication, historical knowledge, and social norms." (James Madison University)
- "class aims to help you become media literate, but also to think more strongly about the media as they relate to citizenship and democracy" (Not Available B)

Appendix 3. Visual Literacy Syllabus

Course Description

This is a course about modes of seeing: how to analyze, understand, and interpret, both cognitively and affectively, the endless visual stimuli we encounter daily. To achieve these goals, you will learn to critically evaluate the credibility of visual media and their sources. Further, you will design your own images through traditional art forms, photography, film, and digital media with each having carefully chosen elements used to communicate your intended message. Within this context, you will consider the ethical, legal, social, and economic issues of visual media, particularly how embedded messages impact and are impacted by the surrounding culture. Theories and practices covered will include communication, rhetoric, aesthetics, and semiotics.

Learning Outcomes

- Construct and deconstruct stories told through visual images
- Understand, operationalize, and internalize concepts of visual literacy and communication from an ethical and cross-cultural perspective
- Appraise the impact of images on one's own culture and how those roles change as the same images appear in other cultural settings.
- Cooperate with classmates in order to participate, communicate, and problem solve effectively through group projects
- Develop and apply team building and management skills toward analyzing and generating visual information
- Build interpersonal skills by witnessing, respecting, and responding to each other's works and ideas.

Readings
Course Textbooks

- *Practices of Looking: An Introduction to Visual Culture,* 2nd edition by Marita Sturken and Lisa Cart-wright (2009)
- *Making Comics* by Scott McCloud (2006)

Other Assigned Readings

- "Chapter 1: Applied Media Aesthetics", "Chapter 2: The First Aesthetic Field: Light", "Chapter 4: The Extended First Field: Color", "Chapter 6: The Two-Dimensional Field: Area" by Herbert Zettl in *Sight, Sound, Motion: Applied Media Aesthetics, 7th Edition* (2014)
- "Ways of Seeing: Chapter 3" by John Berger excerpted in *The Feminism and Visual Culture Reader, 2nd Edition*, edited by Amelia Jones (2010)
- "Chapter 1: Carnival and Chronotope: Bahktin and Style Magazines" by Mikita Brottman in *High Theory/Low Culture* (2005)
- "Toward a Cohesive Theory of Visual Literacy" by Maria D. Avgerinou in *Journal of Visual Literacy, 30 (2)* (2011)
- "Chapter 30: Media Literacy, Aesthetics, and Culture" by Elizabeth Burch in *Handbook of Visual Communication* edited by Ken Smith, Sandra Moriarty, Gretchen Barbatsis, Keith Kenney (2005)
- Chapters 1-3 in *The Art of Seeing, 8th Edition* by Paul Zelanski and Mary Pat Fisher (2010)
- "Chapter 3: Semiotic Analysis" in *Media and Communication Research Methods: An Introduction to Qualitative and Quantitative Approaches, 3rd Edition* by Arthur Asa Berger (2014)
- "Digital Forensics: Photo Tampering Throughout History" in *Scientific American* at http://www.scientificamerican.com/slideshow/photo-tampering-throughout-history/
- "War on Instagram: Framing Conflict Photojournalism with Mobile Photography Apps" by Meryl Alper in *New Media & Society, 16 (8)* (2014). References photographs at http://www.poyi.org/68/17/third_01.php.
- "Chapter 11: Color (Theory) in Art" in *Color: An Introduction to Practice and Principles, 3rd Edition*, by Rolf G. Kuehni (2013)
- Selected chapters from *The Routledge Companion to Aesthetics, 3rd Edition*, edited by Berys Gaut and Dominic McIver Lopes (2013)
- Select segments from *History Matters: The U.S. Survey Course on the Web* from Created by the American Social History Project / Center for Media and Learning (Graduate Center, UNY) and the Roy Rosenzweig Center for History and New Media (George Mason University). http://historymatters.gmu.edu/browse/makesense/ http://historymatters.gmu.edu/mse/photos/ http://historymatters.gmu.edu/mse/sia/cartoon.htm

Assignment Summary
Infographic (ACRL Standards 2, 3, 6)

Create an infographic that depicts a well-known work of literature but excludes typical identifying information such as title and author.

Photojournalism and Digital Manipulation (ACRL Standards 3, 4, 6)

Take a photograph that tells a clear story through a specific point of view then alter it digitally using Adobe Pho-

toshop in order to tell a significantly different story from the original.

Create a website that demonstrates elements from Zettl's writings in contemporary television news broadcasts. Screen shots of CNN, Fox News, Al Jazeera, etc. will be provided by instructors.

Digital Storytelling (ACRL Standards 1, 2, 3, 5, 6, 7)

Use iMovie, Final Cut Pro, Camtasia, Adobe Captivate, ScreenFlow, or any other nonlinear editing software to tell a three-minute story about the neighborhood in which you grew up.

Blog Posts for Readings

Post and respond to the various course readings in the course LMS site.

Short Papers (ACRL Standards 3, 7)

Choose an image, modern or historical. The image may be a painting, a magazine ad, logo, or a screen shot from a video or film. The goal of this paper is to analyze and critique the visual message being communicated and to view the image not only in the current context but also either forward or backward in history (for example, an image of the Confederate States of America flag, alcohol advertisements in men's magazines, or Tutankhamen's burial mask).

Copyright and Fair Use Comic (ACRL Standards 7)

Read: http://www.collegeart.org/pdf/fair-use/best-practices-fair-use-visual-arts.pdf

Create a comic using Pixton explaining a related topic such as: fair use, transformative uses of images, or Creative Commons.

Group Project (ACRL Standards 1-7)

Read: http://blogs.cofc.edu/tlt/2012/10/25/pecha-kucha-in-the-classroom/

Pick a topic related to an issue on campus. It can be controversial or simply informative. In groups of two or three, give a Pecha Kucha using Reveal.js that introduces us to the topic.

Political Cartoons (ACRL Standards 3, 6)

Create a print or digital collage that illustrates a historical or current political issue. Include a scholarly article from a library database that references the point of view for your selected cartoon.

Notes

1. Greg Bobish and Trudi Jacobson, eds., "Chapter 8: Visual Literacy: Applying Information Literacy to Visual Materials," in *The Information Literacy User's Guide* (Geneseo, NY: Open SUNY Textbooks, 2014), http://textbooks.opensuny.org/the-information-literacy-users-guide-an-open-online-textbook/.
2. Ibid.
3. "ACRL Visual Literacy Competency Standards for Higher Education," accessed October 22, 2014, http://www.ala.org/acrl/standards/visualliteracy.
4. Ibid.
5. R.E. Griffin and J. A. Whiteside, "Visual Literacy: A Model for Understanding the Discipline," in *Visual Literacy: Enhancing Human Potential; Readings from the 15th Annual Conference of the International Visual Literacy Association*, ed. Lenora H. Dunker, Alice D. Walker, and Roberts A. Braden (Blacksburg, Va.: Virginia Polytechnic Institute and State University, 1984), 70–82, http://catalog.hathitrust.org/Record/007103441; Joyce Flory, "Visual Literacy: A Vital Skill in the Process of Rhetorical Criticism," in *Annual Conference of the Southern Speech Communication Association* (presented at the Annual Conference of the Southern Speech Communication Association, Atlanta, GA, 1978); P. Reynolds-Myers, "Visual Literacy, Higher Order Reasoning, and High Technology," in *Visual Literacy: Cruising into the Future*, ed. Nina J. Thayer and Susan Clayton-Randolph (presented at the 16th Annual Conference of the Interna-

tional Visual Literacy Association, Bloomington: Western Sun Printing Co, 1985), 39–50; Maria D. Avgerinou, "Towards a Visual Literacy Index," *Journal of Visual Literacy* 27, no. 1 (Spring 2007): 29–46.

6. Barbara Seels, "Visual Literacy: The Definition Problem.," in *Visual Literacy: A Spectrum of Visual Learning*, ed. David Mike Moore and Francis M. Dwyer (Englewood Cliffs, NJ: Educational Technology Publications, 1994), 97–112.

7. Griffin and Whiteside, "Visual Literacy: A Model for Understanding the Discipline"; Reynolds-Myers, "Visual Literacy, Higher Order Reasoning, and High Technology"; Flory, "Visual Literacy"; Avgerinou, "Towards a Visual Literacy Index."

8. Maria D. Argerinou and Rune Pettersson, "Toward a Cohesive Theory of Visual Literacy," *Journal of Visual Literacy* 30, no. 2 (October 2011): 1–19.

9. Avgerinou, "Towards a Visual Literacy Index."

10. Argerinou and Pettersson, "Toward a Cohesive Theory of Visual Literacy."

11. Reynolds-Myers, "Visual Literacy, Higher Order Reasoning, and High Technology."

12. Avgerinou, "Towards a Visual Literacy Index."

13. L. S Vygotsky, *Thought and language*, trans. Alex Kozulin (Cambridge, MA: MIT Press, 1986).

14. David Hung, "Theories of Learning and Computer-Mediated Instructional Technologies," *Educational Media International* 38, no. 4 (December 2001): 281–87, doi:10.1080/09523980110105114; Nel Noddings, *Philosophy of Education*, Dimensions of Philosophy Series (Boulder, CO: Westview Press, 1995).

15. L. S. Vygotsky, *Mind in Society: The Development of Higher Psychological Processes*, ed. Michael Cole et al. (Cambridge, MA: Harvard University Press, 1978).

16. Jennifer Fleming, "'Truthiness' and Trust: News Media Literacy Strategies in the Digital Age," in *Media Literacy: New Agendas in Communication*, ed. Kathleen R. Tyner, New Agendas in Communication (New York, NY: Routledge, 2010), 124–46; Nikolaos Prassos, Stavros Sachtouris, and Tsampika Karakiza, "Teaching Information and Communication Technology with Digital Games," *Proceedings of the European Conference on Games Based Learning*, January 2011, 494–501.

17. Holbrook Mahn and Vera John-Steiner, "Vygotsky and Sociocultural Approaches to Teaching and Learning," in *Handbook of Psychology, Educational Psychology*, ed. Irving B. Weiner, William M. Reynolds, and Gloria E. Miller, 2nd ed. (Hoboken, NJ: Wiley, 2012), 117–45.

18. Ibid.; Jim Garrison, "Dewey's Constructivism: From the Reflex Arc Concept to Social Constructivism," in *John Dewey Between Pragmatism and Constructivism*, ed. Larry A. Hickman, Stefan Neubert, and Kersten Reich, 1st ed, American Philosophy Series (New York, NY: Fordham University Press, 2009), 84–105.

19. Emily Rimland, "Assessing Affective Learning Using a Student Response System," *Portal: Libraries and the Academy* 13, no. 4 (2013): 385–401, doi:10.1353/pla.2013.0037; Ellysa Stern Cahoy and Robert Schroeder, "Embedding Affective Learning Outcomes in Library Instruction," *Communications in Information Literacy* 6, no. 1 (November 20, 2012):

20. "ACRL Visual Literacy Competency Standards for Higher Education."

21. Rimland, "Assessing Affective Learning Using a Student Response System."

22. Robert Schroeder and Ellysa Stern Cahoy, "Valuing Information Literacy: Affective Learning and the ACRL Standards," *Portal: Libraries and the Academy* 10, no. 2 (2010): 127–46, doi:10.1353/pla.0.0096.

23. Cahoy and Schroeder, "Embedding Affective Learning Outcomes in Library Instruction"; Rimland, "Assessing Affective Learning Using a Student Response System."

24. Eva Brumberger, "Visual Literacy and the Digital Native: An Examination of the Millennial Learner," *Journal of Visual Literacy* 30, no. 1 (Spring 2011): 19–47.

25. Avgerinou, "Towards a Visual Literacy Index"; Cheryl Le Roux, "Enhancing Learning and Comprehension through Strengthening Visual Literacy," *Per Linguam* 25, no. 2 (August 8, 2011), doi:10.5785/25-2-34; Marion G. Müller, "Visual Competence: A New Paradigm for Studying Visuals in the Social Sciences?," *Visual Studies* 23, no. 2 (September 2008): 101–12, doi:10.1080/14725860802276248; Theo Hug, "Media Competence and Visual Literacy—towards Considerations beyond Literacies," *Social and Management Sciences* 20, no. 2 (November 28, 2012): 115–25, doi:10.3311/pp.so.2012-2.06.\\uc0\\u8220{}Enhancing Learning and Comprehension through Strengthening Visual Literacy,\\uc0\\u8221{} \\i Per Linguam\\i0{} 25, no. 2 (August 8, 2011

26. Müller, "Visual Competence"; Hug, "Media Competence and Visual Literacy—towards Considerations beyond Literacies.""plainCitation":"Müller, "Visual Competence"; Hug, "Media Competence and Visual Literacy—towards Considerations beyond Literacies.""},"citationItems":[{ "id":5444,"uris":["http://zotero.org/users/37065/items/ E7W327WG"],"uri":["http://zotero.org/users/37065/ items/E7W327WG"],"itemData":{"id":5444,"type":"article-journal","title":"Visual competence: a new paradigm for studying visuals in the social sciences?","container-title":"Visual Studies","page":"101-112","volume":"23","issue":"2","source":"EBSCOhost","abstract":"This introductory article provides an overview and theoretical anchor for the following contributions in this special issue. The article discusses, first, the necessity for introducing a new research paradigm—'visual competence'—in the social sciences (anthropology, communication science, media and social psychology, political science, sociology

27. Le Roux, "Enhancing Learning and Comprehension through Strengthening Visual Literacy."

28. Denise Hattwig et al., "Visual Literacy Standards in Higher Education: New Opportunities for Libraries and Student Learning," *Portal: Libraries and the Academy* 13, no. 1 (2013): 61–89, doi:10.1353/pla.2013.0008; Argerinou and Pettersson, "Toward a Cohesive Theory of Visual Literacy"; Avgerinou, "Towards a Visual Literacy Index."

29. Avgerinou, "Towards a Visual Literacy Index"; Hattwig et al., "Visual Literacy Standards in Higher Education"; "ACRL Visual Literacy Competency Standards for Higher Education."

30. Hattwig et al., "Visual Literacy Standards in Higher Education."

31. Newton S. Metfessel and And Others, "Instrumentation of Bloom's and Krathwohl's Taxonomies for the Writing of Educational Objectives.," in *Annual Meeting of the Amer. Educ. Res. Assn.* (Los Angeles, CA, 1969), http://eric.ed.gov/?id=ED028509; Brett Bixler, "Action Verbs for Objectives," 2014, http://www.personal.psu.edu/bxb11/Objectives/ActionVerbsforObjectives.pdf.

32. "On Photography Exerpt," *Susan Sontag*, 2010, http://www.susansontag.com/SusanSontag/books/onPhotographyExerpt.shtml.

33. John Berger, *Ways of Seeing* (London: British Broadcasting Corp. : Penguin Books, 1972).

34. Schroeder and Cahoy, "Valuing Information Literacy"; Rimland, "Assessing Affective Learning Using a Student Response System."