



IUPUI

**SCHOOL OF INFORMATICS
AND COMPUTING**

DEPARTMENT OF HUMAN-CENTERED COMPUTING
Indiana University-Purdue University
Indianapolis

**NEWM 102
Digital Media Imagery**

**Department of Human-Centered Computing, Media Arts and Science Program
Indiana University School of Informatics and Computing, Indianapolis**

Spring 2016

Credit Hours: 3 Credit Hours (Must enroll both in the lecture section and in one lab)

Section Number(s) Location and Meeting Times:

Lecture Section 28309 IT 355, Tuesdays, 12:00 – 1:15 pm Lab Section 28310 IT 270, Wednesdays, 1:30 – 2:45 pm Lab Section 25565 IT 270, Wednesdays, 3:00 – 4:15 pm <i>First lecture:</i> August 25, 2015 <i>First lab:</i> August 26, 2015	Lecture Section 25563 IT 355, Thursdays, 12:00 – 1:15 pm Lab Section 25564 IT 270, Thursdays, 3:00 – 4:15 pm Lab Section 27482 IT 270, Thursdays, 4:30 – 5:45 pm <i>First lecture:</i> August 27, 2015 <i>First lab:</i> August 27, 2015
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All sections meet at the Informatics & Communications Technology Complex (IT building)
535 West Michigan Street, Indianapolis, IN 46202 [\[map\]](#)

Instructor: Jacob E. Dobson, MFA – Media Arts and Science, Lecturer

Office Hours: Tuesday 2–5 pm or by appointment

Office: IT 483 *Phone:* (317) 274-4393 *Email:* dobson@iu.edu

Lab Graduate Assistant: TBA

COURSE DESCRIPTION

This hands-on course introduces the techniques, aesthetics, and theory of interactive visual communication. Students develop skills in digital imaging and multimedia integration using industry-standard software for creating raster and vector graphics. Students learn principles of design to enhance the aesthetics of their compositions, developing thumbnails, conceptual sketches, and rough drafts.

EXTENDED COURSE DESCRIPTION

This hands-on lab-based course introduces students to a variety of media skills necessary to facilitate further study in the industry. This course focuses on three basic areas associated with interactive visual communication: techniques, aesthetics, and theory. Through techniques basic skills in digital imaging and multimedia integration are explored using industry-standard software, such as Photoshop and Illustrator. To learn aesthetics students use their newly developed software skills to learn principles of design to achieve the optimal compositions. And finally with theory we examine the process of developing

compositional design with thumbnails, conceptual sketches, and rough drafts applying critiques to create interesting visual and interactive communication.

Resources

Lidwell, W., Holden, K., & Butler, J. (2010). *Universal principles of design* (2nd ed.). Beverly, MA: Rockport. ISBN-10: 1592535879 [amazon.com/dp/1592535879/](https://www.amazon.com/dp/1592535879/)

Banfield, R., Lombardo, C. T., & Wax, T. (2015). *Design sprint: A practical guidebook for building great digital products*. San Francisco, CA: O'Reilly. ISBN-10: 1491923172 [amazon.com/dp/1491923172/](https://www.amazon.com/dp/1491923172/)

Prerequisites: None

Software used: Photoshop, Illustrator, Web browser and Internet

Principles of Undergraduate Learning (PULs):

This course is designed to demonstrate IUPUI's principles of undergraduate learning:

- | | |
|--|-----------------------|
| 1A. Core communication: written, oral, and visual skills | Some emphasis |
| 1B. Core communication: Quantitative skills | |
| 1C. Core communication: information resources skills | |
| 2. Critical thinking | Moderate emphasis |
| 3. Integration and application of knowledge | |
| 4. Intellectual depth, breadth, and adaptiveness | Major emphasis |
| 5. Understanding society and culture | |
| 6. Values and ethics | |

Statewide Competencies

6. *Humanistic and Artistic Ways of Knowing*

Upon completion of the Statewide Transfer General Education Core, students will

- 6.1 Recognize and describe humanistic, historical, or artistic works or problems and patterns of the human experience.
- 6.2 Apply disciplinary methodologies, epistemologies, and traditions of the humanities and the arts, including the ability to distinguish primary and secondary sources.
- 6.3 Analyze and evaluate texts, objects, events, or ideas in their cultural, intellectual or historical contexts.
- 6.4 Analyze the concepts and principles of various types of humanistic or artistic expression.
- 6.5 Create, interpret, or reinterpret artistic and/or humanistic works through performance or criticism.
- 6.6 Develop arguments about forms of human agency or expression grounded in rational analysis and in an understanding of and respect for spatial, temporal, and cultural contexts.
- 6.7 Analyze diverse narratives and evidence to explore the complexity of human experience across space and time.

Student Learning Outcomes: (Arts & Humanities, PUL 4)

RBT: Revised Bloom's Taxonomy; PUL: Principle of Undergraduate Learning

Upon completion of this course, students will	RBT	PUL	Statewide Competencies	Assessment
1. Techniques				
<i>Use effectively industry-standard software for creating raster and vector graphics.</i>				
a. Apply raster and vector imaging techniques as appropriate to multimedia projects using software applications.	3	4, 3	6.3	Masking Project Extraction Project Doodle Project
b. Distinguish between analog and digital media production techniques.	4	4	6.3, 6.5	Infographic Project
c. Select appropriate file types for a digital media production method based on their relative advantages.	2	1B	6.3, 6.5	Masking Project
d. Select appropriate compression size, resolution, and file format in preparing digital imagery for print, video, and the Web.	2	1B	6.3, 6.5	Painting Project Infographic Project
e. Demonstrate knowledge to transform, retouch, and blend images layers and masks; selections and measurement; guides and rulers; and filters.	3	4	6.3, 6.5	Masking Project Fantasy Project Painting Project
f. Select color models appropriate for the digital media production method and output and perform color correction and tonal range adjustment.	3	4	6.5	Fantasy Project Painting Project
g. Create vector graphics shapes.	6	4, 1A	6.3, 6.4	Doodle Project Crest Project Character Project Infographic Project
2. Aesthetics				
<i>Create digital artwork using the principles of design and appropriate typography.</i>				
a. Identify and implement principles of design such as Balance, Contrast, Emphasis, Proportion, Pattern, Movement, Rhythm, Unity, and Variety.	2, 3	4, 1A	6.4, 6.7	All Projects
b. Evaluate and use elements of design to draw, paint, and arrange composition digitally.	3, 5	4, 3	6.3	Painting Project
c. Create interesting digital imagery while considering composition and eye flow.	6	4, 1A	6.3	Fantasy Project Painting Project Infographic Project
d. Understand history and trends of typography to use appropriately within a prescribed design.	2, 3	4, 5	6.1, 6.3	Crest Project Infographic Project
3. Theory				
<i>Understand design objectives, possible outcomes and how they relate to the target audience.</i>				
a. Understand the objectives of the design and then explore possible outcomes.	2, 5	1A	6.7	Doodle Project
b. Discuss the theory of the effects of design on the target audience.	2	4, 1A	6.1, 6.2, 6.3, 6.7	Fantasy Project Painting Project Infographic Project
c. Apply image ethics and other best practices in major areas of digital media production.	3	4, 6	6.1, 6.2	Fantasy Project Crest Project
4. Collaboration				
<i>Negotiate requirements and design plans, and critique the work of others.</i>				
a. Communicate with clients on design plans and requirements.	6	1A, 3, 4	6.1, 6.5, 6.7	Infographic Project
b. Set the requirements with client for a digital media project based on its purpose and target audience.	4	4, 2, 3	6.1, 6.5, 6.7	Fantasy Project Character Project Infographic Project
c. Critique digital imagery composed with peers.	4	4, 1A	6.1, 6.5	Character Project

Grading Information

Assessment Type	Project Topic	Points
Homework	Masking Project	10
Homework	Extraction Project	10
Homework	Fantasy Project	10
Midterm	Painting Project	20
Homework	Doodle Project	10
Homework	Crest Project	10
Homework	Character Project	10
Final	Infographics Project	20
<i>Total</i>		<i>100</i>

- Grades will be posted to Canvas assignments.
- **Absolutely nothing for credit will be accepted via email.** including late work or anything else for which a student would expect to earn points.
- Late work is defined as anything turned in after the assignment is due.

Grading Scale:

A+	100%	Professional level work, showing highest level of achievement
A	93–99%	Extraordinarily high achievement, quality of work; shows command of the subject matter
A–	90–92%	Excellent and thorough knowledge of the subject matter
B+	87–89%	Above average understanding of material and quality of work
B	83–86%	Mastery and fulfillment of all course requirements; good, acceptable work
B–	80–82%	Satisfactory quality of work
C+	77–79%	Minimally acceptable performance and quality of work
C	73–76%	Unacceptable work, does not demonstrate mastery
C–	70–72%	Unacceptable work
D+	67–69%	Unacceptable work
D	63–66%	Unacceptable work
D–	60–62%	Unacceptable work
F	Below 60	Failure

DATE	WEEK	LECTURE	LAB / HOMEWORK	POINTS
1/12	1	TECH DEMO: Raster Imaging and Target Audience	LAB: Photoshop Tools and File Types.	
		DESIGN DEMO: Balance	HMWK: Masking (due: 1 week)	
1/19	2	TECH DEMO: Resolution, Extraction, Intro to Layers, Swapping Backgrounds	LAB: Extraction and Backgrounds	10 Due: 1/18
		DESIGN DEMO: Emphasis	HMWK: Extraction (due: 2 weeks)	
1/26	3	TECH DEMO: Histograms, Color Balance	LAB: Image Balancing	
		DESIGN DEMO: Pattern	HMWK: Extraction	
2/2	4	TECH DEMO: Image Ethics and Using Masks in Images	LAB: Masking Images	10 Due: 2/1
		DESIGN DEMO: Rhythm	HMWK: Fantasy (due: 2 weeks)	
2/9	5	TECH DEMO: Advanced Masks and Channels, Color Modes	LAB: Masks and Channels	
		DESIGN DEMO: Movement	HMWK: Fantasy	
2/16	6	TECH DEMO: Layer Blend Modes, Layer Tricks and Tips, Eye Flow	LAB: Layer Blend Modes	10 Due: 2/15
		DESIGN DEMO: Proportion	HMWK: Painting/Midterm (2 weeks)	
2/23	7	TECH DEMO: Reference Photos	LAB: Compositing Reference Photos	
		DESIGN DEMO: Contrast	HMWK: Painting/Midterm	
3/1	8	TECH DEMO: Reference Art	LAB: Critique Midterm	20 Due: 2/29
		DESIGN DEMO: Varsity	HMWK: Doodle (due: 2 weeks)	
3/8	9	TECH DEMO: Vector and Comparing Photoshop to Illustrator, Scalability	LAB: Creating Vector Shapes	
		DESIGN DEMO: Unity	HMWK: Doodle	
3/15	10	TECH DEMO: Pen Tool and Paths	LAB: Pen Tool and Other Illustrator Tools	10 Due: 3/14
		DESIGN DEMO: Golden Ratio	HMWK: Crest (due: 2 weeks)	
3/22	11	TECH DEMO: Paths and Bezier Curves	LAB: Bezier Curves	
		DESIGN DEMO: Design in Nature	HMWK: Crest	
3/29	12	TECH DEMO: Shapes and Creating Complex Shapes	LAB: Shapes	10 Due: 3/28
		DESIGN DEMO: Function & Beauty	HMWK: Character (due: 2 weeks)	
4/5	13	TECH DEMO: Text and Expanding Shapes	LAB: Text and Expanding Shapes	
		DESIGN DEMO: Typography	HMWK: Character	
4/12	14	TECH DEMO: Final Exam Review (Covers Entire Semester)	LAB: Shadows	10 Due: 4/11
		DESIGN DEMO: Function of Grids	HMWK: Infographic/Final (2 weeks)	
4/19	15	TECH DEMO: Review for Final Project and Questions From Students	LAB: Analyze Graphic Layouts	
		DESIGN DEMO: Design Trends	HMWK: Infographic/Final	
4/26	16	Critique Final Project	LAB: Review Semester Highlights	20 Due: 4/25

EXPECTATIONS, GUIDELINES, AND POLICIES

Attendance:

Attendance to lecture and labs is required. It entails being present and attentive for the entire class period. The instructor is required to submit to the Registrar a record of student attendance, and action shall be taken if the record conveys a trend of absenteeism.

Regular and punctual attendance is vital to the success of any class; therefore attendance to lecture is mandatory and attendance to labs is highly recommended. The assignments, lectures, and labs in this class are cumulative and regular and punctual attendance is crucial to your success. I do understand that life happens and it may be impossible to attend every class, therefore, I will permit each student to miss 3 lectures or labs, regardless of reason, without any disciplinary action. **Any content missed will be the responsibility of the student, and lectures or labs will not be repeated, other than what might be posted online for class and late work will not be accepted.**

If a student misses four (4) lectures for any reason, unless there are extenuating circumstances that have been discussed and arrangements have been made and approved by the instructors, the student will automatically fail the course.

Incomplete:

The instructor may assign an Incomplete (I) grade only if at least 75% of the required coursework has been completed at passing quality and holding you to previously established time limits would result in unjust hardship to you. All unfinished work must be completed by the date set by the instructor. Left unchanged, an Incomplete automatically becomes an F after one year. <http://registrar.iupui.edu/incomp.html>

Deliverables:

No files or homework will be accepted via e-mail for any reason. Late work will not be accepted. These policies will be strictly enforced.

Work for this course will be handed in via Canvas in the Lab section for which you are enrolled. The lecture section is where readings and resources will be posted and where the instructor will contact you via email. General announcements for the course will be posted to the lecture section. Lab-specific announcements will be posted to lab sections. Midterms and finals will be posted to the lab sections since they will be introduced during lab times.

If you want feedback on an assignment or exercise and you missed the due date, make an appointment to see me in my office and I will critique your work. At least that way you will learn from what you did right and what you did wrong so you can apply that knowledge to the remaining assignments/exercises. My best advice is just to get everything in on time to avoid this problem.

Extenuating circumstances can be discussed on an individual basis, but the final decision is up to the instructor in all cases and proof of the extenuating circumstance(s) will be required, such as a doctor's note, obituary notice, police report, or other substantial proof. Abuse of the system by previous students is the reason for this requirement... In the event of an extenuation circumstance, graduate assistants will defer to the course instructor's decision.

Check Canvas regularly (daily) for assignment details and messages in the event of an unforeseen change. Failure to do so is not an excuse for missing an important message or assignment. **Redirecting your Canvas email to an email address you check daily is recommended, to avoid missing important information.**

Any project handed in during this course may be eligible for inclusion on my website as an example of student work. Previous examples of student work can be seen by visiting my image galleries on Facebook. If you do not wish for your work to be displayed on my teaching portfolio or website, please let me know in writing and I will honor your wishes.

In the event that a student must miss an assignment it is the student's responsibility to contact the course instructor to arrange for an explanation of the assignment during office hours.

Pop quizzes that are missed may not be made up.

Participation in discussion and critique is expected of all students. Critique is intended to be a place where we can explore the strengths and weakness of each other's work. Any personal attacks or unsubstantiated criticism (or praise) of work will not be tolerated. Every project/assignment/exercise is subject to critique.

CODE OF CONDUCT

All students should aspire to the highest standards of academic integrity. Using another student's work on an assignment, cheating on a test, not quoting or citing references correctly, or any other form of dishonesty or plagiarism shall result in a grade of zero on the item and possibly an F in the course. Incidences of academic misconduct shall be referred to the Department Chair and repeated violations shall result in dismissal from the program.

All students are responsible for reading, understanding, and applying the *Code of Student Rights, Responsibilities and Conduct* and in particular the section on academic misconduct. Refer to *The Code > Responsibilities > Academic Misconduct* at <http://www.indiana.edu/~code/>. All students must also successfully complete the Indiana University Department of Education "How to Recognize Plagiarism" Tutorial and Test. <https://www.indiana.edu/~istd> You must document the difference between your writing and that of others. Use quotation marks in addition to a citation, page number, and reference whenever writing someone else's words (e.g., following the *Publication Manual of the American Psychological Association*). To detect plagiarism instructors apply a range of methods, including Turnitin.com. <http://www.ulib.iupui.edu/libinfo/turnitin>

Academic Misconduct:

1. **Cheating:** Cheating is considered to be an attempt to use or provide unauthorized assistance, materials, information, or study aids in any form and in any academic exercise or environment.
 - a. A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized external assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, calculators, computers, and wireless communication devices.
 - b. A student must not use another person as a substitute in the taking of an examination or quiz, nor allow other persons to conduct research or to prepare

work, without advanced authorization from the instructor to whom the work is being submitted.

- c. A student must not use materials from a commercial term paper company, files of papers prepared by other persons, or submit documents found on the Internet.
 - d. A student must not collaborate with other persons on a particular project and submit a copy of a written report that is represented explicitly or implicitly as the student's individual work.
 - e. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.
 - f. A student must not steal examinations or other course materials, including but not limited to, physical copies and photographic or electronic images.
 - g. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor or program to whom the work is being submitted.
 - h. A student must not, without authorization, alter a grade or score in any way, nor alter answers on a returned exam or assignment for credit.
2. **Fabrication:** A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citation to the sources of information.
 3. **Plagiarism:** Plagiarism is defined as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered "common knowledge" may differ from course to course.
 - a. A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.
 - b. A student must give credit to the originality of others and acknowledge indebtedness whenever:
 1. directly quoting another person's actual words, whether oral or written;
 2. using another person's ideas, opinions, or theories;
 3. paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
 4. borrowing facts, statistics, or illustrative material; or
 5. offering materials assembled or collected by others in the form of projects or collections without acknowledgment
 4. **Interference:** A student must not steal, change, destroy, or impede another student's work, nor should the student unjustly attempt, through a bribe, a promise of favors or threats, to affect any student's grade or the evaluation of academic performance. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.
 5. **Violation of Course Rules:** A student must not violate course rules established by a department, the course syllabus, verbal or written instructions, or the course materials that are rationally related to the content of the course or to the enhancement of the learning process in the course.

6. **Facilitating Academic Dishonesty:** □ A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct, nor allow another student to use his or her work or resources to commit an act of misconduct.

OTHER POLICIES

1. **IUPUI course policies:** A number of campus policies governing IUPUI courses may be found at the following link: http://registrar.iupui.edu/course_policies.html
2. **Classroom civility:** To maintain an effective and inclusive learning environment, it is important to be an attentive and respectful participant in lectures, discussions, group work, and other classroom exercises. Thus, unnecessary disruptions should be avoided, such as ringing cell phones engagement in private conversations and other unrelated activities. Cell phones, media players, or any noisy devices should be turned off during a class. Texting, surfing the Internet, and posting to Facebook or Twitter during class are generally not permitted. Laptop use may be permitted if it is used for taking notes or conducting class activities. Students should check with the instructor about permissible devices in class. IUPUI nurtures and promotes “a campus climate that seeks, values, and cultivates diversity in all of its forms and that provides conditions necessary for all campus community members to feel welcomed, supported, included, and valued” (IUPUI Strategic Initiative 9). IUPUI prohibits “discrimination against anyone for reasons of race, color, religion, national origin, sex, sexual orientation, marital status, age, disability, or [veteran] status” (Office of Equal Opportunity). Profanity or derogatory comments about the instructor, fellow students, invited speakers or other classroom visitors, or any members of the campus community shall not be tolerated. A violation of this rule shall result in a warning and, if the offense continues, possible disciplinary action.
3. **Right to revise:** The instructor reserves the right to make changes to this syllabus as necessary and, in such an event, will notify students of the changes immediately.
4. **Bringing children to class:** To ensure an effective learning environment, children are not permitted to attend class with their parents, guardians, or childcare providers.
5. **Disabilities Policy:** In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. Please notify the instructor during the first week of class of accommodations needed for the course. Students requiring accommodations because of a disability must register with Adaptive Educational Services (AES) and complete the appropriate AES-issued before receiving accommodations. The AES office is located at UC 100, Taylor Hall (Email: aes@iupui.edu, Tel. 317 274-3241). Visit <http://aes.iupui.edu> for more information.
6. **Administrative Withdrawal:** A basic requirement of this course is that students participate in all class discussions and conscientiously complete all required course activities and/or assignments. If a student is unable to attend, participate in, or complete an assignment on time, it is the student’s responsibility to inform the instructor. If a student misses more than half of the required activities within the first 25% of the course without contacting the instructor, the student may be administratively withdrawn from this course. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take

place after the full refund period, and a student who has been administratively withdrawn from a course is ineligible for a tuition refund. Contact the instructor with questions concerning administrative withdrawal.

7. **Emergency Preparedness:** Safety on campus is everyone's responsibility. Know what to do in an emergency so that you can protect yourself and others. For specific information, visit the emergency management website. <http://protect.iu.edu/emergency>

MISSION STATEMENT

The Mission of IUPUI is to provide for its constituents excellence in

- Teaching and Learning;
- Research, Scholarship, and Creative Activity; and
- Civic Engagement.

With each of these core activities characterized by

- Collaboration within and across disciplines and with the community;
- A commitment to ensuring diversity; and
- Pursuit of best practices.

IUPUI's mission is derived from and aligned with the principal components—Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices—of Indiana University's Strategic Directions Charter.

STATEMENT OF VALUES

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana's capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community, both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.