

EDHD 231: Inside 21st Century Creativity

I-Series Course Syllabus Fall 2020

We live in a world where we constantly need to be creative: From solving critical problems such as climate change and improving public health to more mundane issues such as what to eat for dinner, creativity *can* be involved. Literature, science, art, dance, music and even cooking are all potentially creative activities. *What underlies these vastly different aspects of creativity in the 21st century?*

Our Big Question: What is the nature of creativity?

This semester we have assembled a collection of readings and resources that you will use to explore the human mind and creativity-supportive contexts. Due to the apparent limitlessness of topics on creativity, however, we have imposed our own limits on the content, narrowing down to a few manageable topics with hopes that we do not suppress your valuable ideas and goals.

Each topic has an underlying principle to convey.

All topics and their underlying principles are designed to nudge you toward a new account of creativity that you can then use in your later work. At the same time, we aim to stimulate critical thinking abilities that you can apply across multiple disciplines and domains.

Thus, the overall trajectory of the course is to assist you in assembling **a clear, evidence-based framework for understanding creative 1) processes, 2) people, and 3) products.**

EDHD231 students will demonstrate:

1. An understanding of both the nature and breadth of creativity. The focus will be on the underlying mechanisms of the creative process across multiple contexts and domains;
2. An understanding of both the history of creativity research and how it relates to theories of cognitive, social, and cultural dimensions of creativity. Methods of creativity measurement will be pertinent to this understanding.
3. Understanding of the roles and mechanisms of biological processes in creative thought, including brain-based, genetic, and neurochemical factors influencing creativity;
4. Understanding of the different forms that creativity takes across domains, such as music, the visual arts, performing arts, and the sciences;
5. Understanding of the concept of "malevolent creativity," where creativity is used to do harm. How to prevent this from happening and determine whether "malevolent creativity" involves the same or different mechanisms as "positive" or "prosocial creativity";
6. Understanding of ways in which creativity can be fostered or enhanced: Educational, pharmaceutical, social, & genetic means have all been attempted in order to enhance creativity; do they work or do we even want them?

Overview: This course involves learning to think critically about creativity. We will write, discuss, and present information that distills concepts in a clear manner and exemplifies the ideas and mechanisms underlying creativity.

Required Resources

Course website: elms.umd.edu
Readings are posted in Canvas-ELMS.
No textbook is required.

Creativity Coaches (CCs)

Dr. Alexis Williams

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Dr. Kevin Dunbar

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S. Alexa McDorman

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(Graduate TA)

Class Meetings

Canvas-ELMS (Online)

Synchronous: Thursdays only

via ELMS Zoom

9:30am - 10:45am

Office Hours: Tuesdays

9:30am - 10:45am

Easily adjusted by request

No Prerequisites

Course Communication

Canvas-ELMS messages are

the best way to stay in contact.

Please copy all members of the learning team coaches (CCs).

Course announcements & changes will be posted on ELMS. Please be in touch to discuss your ideas, questions, absences, & accommodations. Voice calls or text chats may be arranged.

Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses. Please visit <https://www.ugst.umd.edu/courserelatedpolicies.html> for the Office of Undergraduate Studies' (UGST) full list of campus-wide policies and follow up with us if you have questions. UGST can help you with the following and more:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Course-Specific Policies

Learning with Computers, Smart Phones, Tablets & Other Devices: The cooperative learning environment and your learning overall can benefit greatly from your deliberate training in and active use of strategies for metacognition (visit <https://cft.vanderbilt.edu/guides-sub-pages/metacognition/> for basics). Also, given that devices may be helpful for ADS accommodations, it is important that you inform us if any technology or assignment design we use in this course limits your access or ease-of-use.

Metacognitive Strategies for Technology: In our course, you are encouraged to **make note of your learning with an awareness of your current thinking** so you can actually use the information later. If you write or illustrate your thoughts by hand, you give yourself the multimodal benefit of connecting physical sensations and muscle memory with your thoughts. However, quick typing can also be effective **if you note metacognitively what you should remember and how to apply new details**. Do not rely solely on verbatim transcription or extended direct quotes, either in your personal notes or assignment submissions. Sometimes an exceptional term will be worth capturing exactly as it is, but keep direct quotes/transcriptions separate from your general notes. In general, try to 1) listen actively, 2) interpret meanings, and 3) **document only the most meaningful info in your own words**. When reading, have a conversation with the author in your mind. Your resulting notes will reflect the essentials along with any questions and insights you have as you learn. You may even refer less often to your notes during recall.

Reduce Distractions While Learning. When tech is needed to accomplish a task, by all means, **use it ..in smart ways!** Note-taking and following along with slides can be low-risk activities with respect to distraction. Looking up new information is riskier, so if you are prone to getting distracted by hyperlink rabbit holes or sidebar ads, then **own it!** (*Seriously, we do, too*). Plan to time yourself or ask someone else to help you monitor your on-task behavior. **Finally, and maybe most importantly, while you work, activate "Do Not Disturb" (DND) settings for your device notifications** from friends or social media; it should surprise you if a text or push notification gets through while you are supposed to be on task. If you're fancy, get a pomodoro timer to force yourself to wait for – and then *really take* – breaks, or create a recurring DND automation on your devices. Even a simple phone alarm can help you build a habit to focus on specific days and times.

Identities, Names, and Pronouns: Your identity makes you unique and valuable. Gender, ethnicity, class, LGBTQ+ status, religion, and dis/ability status or profile are just a few of the multifaceted but not always apparent ways you might describe your own identity, and we defer to you so you can be *and feel* welcomed and expected in the course.

With respect to names and pronouns, many people might go by a name in daily life that is different from their legal name. In this course, we seek to refer to people by the names that they go by. Pronouns can be a way to affirm someone's gender identity, but the two can also be unrelated. Pronouns are simply a public way to refer to folks in place of their name (e.g., "he," "she," "they," "ze," or something else). You are invited - if you want - to share what pronouns you go by, and we seek to refer to you using the pronouns that you share. *Note:* The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Grades

The grading criteria for EDHD 231 are based on the University-wide grading criteria for General Education and [I-Series Courses](#). Your grade is determined by your performance on the learning assessments in the course and is assigned individually (not curved). All assessment scores will be posted on the course ELMS page. If you would like to review any of your grades or have questions about how something was graded please email the CCs to schedule a time. Plan to have work submitted well before the scheduled deadline. We are happy to discuss your grades with you, and if we have made an error in your grade, we will correct it as soon as possible. Formal grade disputes must be submitted in writing and within one week of receiving the grade.

Grading Scale

A+	97 - 100%	B+	87 - 89%	C+	77 - 79%	D+	67 - 69%	F	below 60%
A	93 - 96%	B	83 - 86%	C	73 - 76%	D	63 - 66%		
A-	90 - 92%	B-	80 - 82%	C-	70 - 72%	D-	60 - 62%		

Grading rubrics accompany major assignments in Canvas-ELMS.

Seek Help & Thrive. You take personal responsibility for your own learning when you 1) assess often whether your performance matches your goals and 2) calibrate your strategies to be responsive. We can help you find the right approach to success in this course, and we encourage you to visit [UMD's Student Academic Support Services](#) to learn more about the wide range of campus resources available to you. In particular, everyone can use some help sharpening their communication skills (and improving their grade) by visiting [UMD's Writing Center](#) and scheduling an appointment.

There's a wide range of resources to support you with whatever you might need ([UMD's Student Resources and Services website](#) may help). If you feel it would be helpful to have someone to talk to beyond our course, visit [UMD's Counseling Center](#) or [one of the many other mental health resources on campus](#).

Weekly Map: What Does A Typical Week Look Like?

We have designed most of our week to be asynchronous to accommodate the variety of schedules and time zones. However, we made one exception with live – synchronous – open discussions once a week to assist you with assignment processing and to maintain a sense of community in our class.

	Prep Week	Tuesday	Thursday	End Week
Weekly Events	<ul style="list-style-type: none"> Reading Notes Check-in with partner, community, & Creativity Coaches (CCs) 	<ul style="list-style-type: none"> Opening module w/CCs Opening ACT CCs' take-home messages Moderated discussion 	<ul style="list-style-type: none"> Moderator comments & conclusions 30-minute open discussion w/CCs (live Zoom in ELMS) Closing ACT 	<ul style="list-style-type: none"> Finish up or catch up Request to moderate Share ideas Begin next week prep
Special Events				
Moderator	Send ideas & questions to CCs by Sunday	Post a question or idea in discussion board & preview responses*	Concluding comments & protected time during live discussion	Finish any desired follow-up or questions
Midterm	Collect ideas**	Ask questions & prepare with class	Complete midterm by Sunday	
Final	Collect ideas**	Ask questions & prepare with class	Complete final by due date	

* Optional: Moderator may respond to comments & collaborate with other moderators as desired

** Ideas may be collected from class or outside resources; cite your sources

Assignments & Evaluation: How Can You Maintain Your Grade?

1) Moderate a discussion (12 points out of 100)

What intrigues you most about creativity in the 21st century? You may be interested in a particular week's topic more than others; try to choose that week to moderate a discussion about it. As one of the week's moderators, you get to dig into the topic, guide our discussion in a specific direction, and explore your classmates' ideas about it. You want to engage others on the broad nature of creativity with your own spin, **focusing** on relevant content, **clarifying** concepts, and **persuading your audience** by addressing multiple interpretations or any conflicting data.

Discussion moderation is simple. Sign up for a particular week that **does not already have 6 moderators**. You may adjust your choice through mid-semester, after which any students who have not chosen a topic will receive an automatic topic assignment in Week 7.

In preparation for your moderation week, you will **share your draft questions or ideas** with the Creativity Coaches (CCs) for review, at least by the Sunday before your chosen week. We will send any questions and approvals back to you by that Monday afternoon. You may be as creative as you like as long as your idea gets approved, but we recommend that you check in early with any *especially* quirky ideas before investing much time on them.

During your moderation week, **post your challenge or question in the related discussion board** & monitor the class discussion until our review day (typically Thursday). You may respond to individuals during that time, but you are not required to do so. Moderators may collaborate if there is more than one for a given week; they may also collaborate across weeks if they can relate their topics.

All other students are expected to **respond thoughtfully to one moderator entry at least once** to be credited weekly. Students may respond to more entries as desired; have a conversation. CCs may chime in; moderators may also request that CCs not respond until after the group review so their classmates are not swayed by the CCs' perspectives, but CCs reserve the right to respond or edit posts as needed.

Your goal is to **encourage active learning and build community in a way that you get to choose**. You can generate *brief* polls or quizzes, have *brief* debates, tie in other *brief* sources, or come up with something new (and *brief* – there's a theme here). This is a low-pressure activity, however, so let the CCs know if you're stumped or feel overwhelmed with this task.

2) Opening and Closing ACTs (48 points out of 100; ~4 points/most weeks)

If ACTs *must* have meaning other than "activities," we can refer to them as **Actionable Concepts & Theories**. There are many evidence-based ways to explore new ideas and content meaningfully, so we try to incorporate some of them regularly each week. Typically, ACTs are submitted via Canvas-ELMS after any introductory content or summary discussion. They allow you to apply what you are learning or provide your own ideas or experiences relevant to that week's topic. The Opening ACT focuses on your early understandings and allows structured interactions with the rest of the class via discussion board. The Closing ACT allows you to incorporate others' perspectives into your take-aways that you can then apply to your midterm or final assignment. Note that the first two weeks' activities are exceptional with higher point values but more flexible submission dates due to schedule adjustment and their irregular format compared to the more standardized weeks later on.

Note that to participate effectively, you must be engaged and timely. Your timely participation in the online class discussions and activities is important; you should also pay careful attention to requests, instructions, and announcements from coaches and classmates.

Your engagement with the material and thoughtful connection with others in the class are almost never reflected in course grades as – we believe – they should be. We believe your ultimate goals of practical content knowledge and social adeptness depend on your commitment to staying active in your learning and in your academic and professional communities. To be sure that you earn full credit for your hard work: 1) submit assignments or posts on time, 2) respond and *encourage others gently to respond* to questions and comments during activities, 3) communicate with your classmates on assignments, and 4) report honestly to one another when you need help or expect more effort.

A note about readings: Many readings and resources can be found online, but they are made available in Canvas-ELMS in case there are any issues with access. However, PDF versions may be missing some images, links, or embedded videos found in their original multimedia sources, so if you are especially interested in a source, check the online version, too, or research the topic further in general. The additional perspective you gain will be useful for discussions and you will get more out of your learning experience during the semester overall.

3) Midterm (12 points out of 100)

After several topic explorations, you will use three readings to define and expand on your understandings of creativity so far. You will continue to use the concepts you connect in the midterm to inform your underlying framework for creativity processes and contexts through the end of this course. The default format will be an essay but you may specify or justify a different form (See guidelines).

4) Final Proposal (12 points out of 100)

In preparation for the final, you will **settle on a specific topic that intrigues you with respect to our big challenge: To understand the nature of creativity.** You will propose how you would like to explore your topic in a brief outline or executive description using topic headings. Consider what you have learned about the nature of creativity **and what you would like to examine more critically about this topic.** Try to be specific, but your proposal should not be longer than one page. Your proposal will be due by **Sunday, October 26 at 11:59 pm** (assignment page released after Week 6) and submitted through Canvas-ELMS.

5) Final (12 points out of 100)

The final will flush out your proposal on a key topic of your choice. **The final also builds on your midterm in that you will reflect on your previous understandings of the nature of creativity - and describe any changes or increased clarity you have come to - through your discussion of your focal topic.** You may address a topic covered in the course, but feel free to include source materials or topics beyond the course. The default format will be an essay unless you specify or justify a different form in your proposal (See guidelines).

Submit the final in Canvas-ELMS by Thursday, December 17 at 11:59 pm. The product should be NO MORE THAN 8 pages (maximum) double-spaced. There is no minimum page length.

EDHD 231 Participation & Schedule

	(N.D.)	Undated Participation	To Do	Due	Complete? <input checked="" type="checkbox"/>	Points	Earned	Subtotal
Mandatory		ACT Moderator	Curate ACT Discussion	Sunday prior		8		/
Optional		Il Foro – Town Square	Opine-discuss-Q&A about anything	Ongoing		Up to 6 ex.cr.		/0*
Optional		Course Investment	Provide suggestions & feedback	Ongoing		Up to 6 ex.cr.		/0*
						Subtotal		/
W#	Date	Topic/Agenda	To Do	Due	Complete? <input checked="" type="checkbox"/>	Points	Earned	Subtotal
1	9/1	Course Overview	Syllabus + Questions: Submit Qs, Ideas, & Input Preview Readings	9/2 @Midnite (@M)		4		/
	9/3	Open Discussion	Zoom Live: Talk About It! W1 Survey	9/4@M		4		/
2	9/8	Creativity Processes & Products	PrACTice	9/9@M		4		/
	9/10	Discussion	Zoom Live W2 Survey (All Syllabus Qs & Surveys)	9/11@M		4		/
3	9/15	Mental Illness	ACT 1 (Open)	9/16@M		2		/
	9/17	Discussion	Zoom Live + ACT 1 (Close)	9/18@M		2		/
4	9/22	Development in Children	ACT 2 (Open)	9/23@M		2		/
	9/24	Discussion	Zoom Live + ACT 2 (Close)	9/25@M		2		/
5	9/29	Gender	ACT 3 (Open)	9/30@M		2		/
	10/1	Discussion	Zoom Live + ACT 3 (Close)	10/2@M		2		/
6	10/6	Measurement of Creativity: Applications	Midterm Prep	10/7@M		2		/
	10/8	Midterm	Complete Midterm	10/11@M		12		/
7	10/13	Science and Engineering	ACT 4 (Open)	10/14@M		2		/
	10/15	Discussion	Zoom Live + ACT 4 (Close)	10/16@M		2		/
8	10/20	Cooking, Food, & Cuisine: The 21 st century revolution	ACT 5 (Open)	10/21@M		2		/
	10/22	Discussion	Zoom Live + ACT 5 (Close)	10/23@M		2		/
Sun	10/26	Final Proposal	Submit Proposal	10/26@M		12		/
9	10/27	The Brain	ACT 6 (Open)	10/28@M		2		/
	10/29	Discussion	Zoom Live + ACT 6 (Close)	10/30@M		2		/
10	11/3	Social Media	ACT 7 (Open)	11/4@M		2		/
	11/5	Discussion	Zoom Live + ACT 7 (Close)	11/6@M		2		/
11	11/10	Music	ACT 8 (Open)	11/11@M		2		/
	11/12	Discussion	Zoom Live + ACT 8 (Close)	11/13@M		2		/
12	11/17	Creative Malevolence	ACT 9 (Open)	11/18@M		2		/
	11/19	Discussion	Zoom Live + ACT 9 (Close)	11/20@M		2		/
13	11/24	AI Robots	ACT 10	11/25@M		2		/
	11/26	<i>Thanksgiving Intermission</i>						
14	12/1	Creativity Themes Review	W14 Survey	12/2@M		2		/
	12/3	Discussion	Zoom Live	12/4@M		2		/
15	12/8	Final Prep	Final ACT	12/9@M		2		/
	12/10	Open Discussion	Zoom Live	12/11@M		2		/
16	12/15	<i>Reading Day</i>						
	12/17	Final	Complete Final	12/17@M		12		/
						Subtotal		/
						Total		___/100*

* Assignments are designed to total over 100 to adjust for occasional missed connections. Additional extra credit may be earned with special engagements such as peer reviews, providing reactions or suggestions to CCs to improve the student course experience, or being in touch with classmates beyond our baseline activities (e.g., accountability partnerships to keep one another on track, sharing or answering questions in community open spaces with quirky names like Il Foro or Town Square).

Note: This is a tentative schedule and subject to change as necessary – monitor the course ELMS page for current deadlines and or different readings. In the event of a prolonged university closing or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.

Topics & Associated Readings

All Readings and Resources in Canvas-ELMS

Week 1

Introduction to the Course

- A: Lehrer, J. (2012). Introduction to *Imagine: How creativity works*. Pages i-xx. Houghton Mifflin Harcourt. New York, NY.
- B: Rothman, J. (2014). Creativity Creep. *The New Yorker* September 2. <https://www.newyorker.com/books/joshua-rothman/creativity-creep>

Week 2

Creativity Processes and Products

- A: Weisberg, R. E. (2010) The study of creativity: from genius to cognitive science. *International Journal of Cultural Policy*, 16, 235–253.
- B: Indurkha, B., & Ogawa, S. (2012). Mechanisms of Creativity in Visual Arts. *Proceedings of the Cognitive Science Society*, 34, 1727-1732.

Week 3

Mental Illness

- A: Mula, M Hermann, B, Trimble, M.R (2016). Neuropsychiatry of creativity. *Epilepsy & Behavior*, 57, B, 225–229.
- B: Arehart-Treichel, J. (2012). Genes May Be Missing Link Between Creativity, Mental Illness. *Psychiatric News*. Published online: January 20.

Week 4

Development in Children

- A: Russ, S. W. (2016). Pretend play: Antecedent of adult creativity. In B. Barbot (Ed.), *Perspectives on creativity development: New Directions for Child and Adolescent Development*, 151, 21– 32B: Russ, S.W. (2016).
- B: Roland, C. (2006). *Young in Art: A developmental look at Child Art*. www.artjunction.org

Week 5

Gender

- A: Grewal, D. (2015). The Creativity Bias against Women. *Scientific American*, December 8
- B: Boxer, S. (2016). An era for women artists. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/2016/12/move-over-Michelangelo/505826/>

Week 6

Measurement of Creativity: Applications

- A: Dumas, D., & Dunbar, K. N. (2016). The Creative Stereotype Effect PLOS One
- B: Baer, J. (2016). Creativity doesn't develop in a vacuum. In B. Barbot (Ed.), *Perspectives on creativity development: New Directions for Child and Adolescent Development*, 151, 9–20.

Week 7

Science and Engineering

- A: Lehrer, J. (2009). The Neuroscience of Screwing Up. *Wired*, December 21.
- B: Zhang, S. (2015). Battle-genome-editing-gets-science-wrong, *Wired*, January.

Week 8

Cooking, Food & Cuisine: The 21st century revolution

- A: Billow, R. (2014). How IBM's chef Watson actually works. *Bon Appetit*, June 30. <https://www.bonappetit.com/entertaining-style/trends-news/article/how-ibm-chef-watson-works>
- B: Cousins, J., O'Gorman, K.D., and Stierand, M. (2011). Molecular gastronomy: Basis for a new culinary movement, or modern-day alchemy? *International Journal of Contemporary Hospitality Management*. 22, 399-415.
- C: Hart, H. (2014). Cataloging Creativity: Ferran Adrià Showcases 7 Years of Culinary Art and Science. *Fast Company*. March 19. <https://www.fastcompany.com/3027589/cataloging-creativity-ferran-adriashowcases-7years-of-culinary-art-science>.

Week 9

The Brain

- A: Kaufman, S., B. (2013). The real neuroscience of creativity. *Scientific American*, August 17.
- B: National Endowment for the Arts (2015). *How creativity works in the brain*. Chapter 1, Pp. 16-22.
- C: *EXTRA READING (supplemental)* Lindell, A.K., & Kidd, E. (2011). Why Right-Brain Teaching is Half-Witted: A Critique of the Misapplication of Neuroscience to Education. *Mind, Brain, & Education*, 5, 121-127.

Week 10

Social Media (Smedia)

- A: Corso, R. & Robinson, C-H. (2013) Enhancing Creative Thinking abilities through the use of Social Media. *International Journal of Knowledge, Innovation, & Entrepreneurship*, 1, 92-105.
- B: Kaplan, A. M., & Haenlein. M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53, 59-68.

Week 11

Music

- A: Levitin, D. (2011). In search of the musical mind. *Cerebrum*, 2, 31-49.
- B: Mason, W. (2017). Three Iconic Musicians on Artistic Creation and Its Importance Now: Beck, Kendrick Lamar and Tom Waits articulate. *The New York Times Style Magazine*, March 5, p.96.

Week 12

Creative Malevolence

- A: Gladwell, M. (2011). "Creation Myth: Xerox PARC, Apple, and the truth about innovation" *The Atlantic*, May 16.
- B: Cropley, A., Kaufman, C., & Cropley, C. (2008). Malevolent Creativity: A Functional Model of Creativity in Terrorism and Crime. *Creativity Research Journal*, 20(2), 105-115.

Week 13

AI Robots

- A: Fitzgerald, T., Goel, A., & Thomaz, A. (2016). Human-Robot Co-Creativity: Task Transfer on a Spectrum of Similarity. *Eighth International Conference on Computational Creativity (ICCC)*.
- B: Dorhmel, L. (2018). Truly Creative AI is just around the Corner. *Digital Trends*. Jan 8. <https://www.digitaltrends.com/cool-tech/artificial-intelligence-creativity-future/>