

SYLLABUS

Fall 2016

Course level: TEC/ENG 298

Instructor: Dr. William M. Patterson

Course: Decoding Dr. Dre: Urban Creativity in Engineering

Decoding Dr. Dre: Introduction to Urban Creativity in Engineering, Technology, and Entrepreneurship, poses questions such as what would happen if we examined engineering within a cultural context? Would we discover more urban geniuses like Grandmaster Flash, Missy Elliot, DJ Jazzy Jeff, Will I Am, Pharell Williams, Ralph Giles, and Dr. Dre? This course explores the impact that popular culture has had on some of today's most exciting engineering developments and aims to discover the cultural engineer in you.

Our iconic subject will be Dr. Dre, who moved beyond making great rhymes and beats to developing and marketing products that impact the automotive, computer, cellphone, software, and audio industries with his company, BEATS. Our goal is to inspire you to consider the possibilities of your own engineering experience by first examining the world around you and the products you use on a daily basis.

Method of Pedagogy: The pedagogical approach utilized in the course is interactive lecture & discussion. Additionally, there will be reviews of audio and video recordings, and various Internet based article readings. Each week students are required to post to the course blog. Blog topics emerges from class discussions. This is a threaded discussion, meaning students reply to previous posts and take the conversation to the next level.

Method of Evaluation and Grading: This course is participant and scholarship intensive. Students are expected to adhere to the University's policy on class attendance. Students are required to meet in-class assignments in a timely manner. Students are allowed only one unexcused absence per semester. Attendance, class participation, blogging, and the final project make up the final grade as follows:

25% - Class Participation

25% -Blogging

10%-Attendance

40%-Final Project

Office Hours:

Dr. Patterson will be available to discuss grades and other items of concern by arranged office appointments and can be contacted at wmpatter@illinois.edu

Course Goals:

1. Explore how Dr. Dre demonstrates the "Ghetto Genius Paradigm" to apply his theories of market development, technology repurposing, and "intra-community bootstrapping" to fund his entrepreneurial ventures.
2. Explore how Hip Hop Culture inspires innovation and entrepreneurship in tech and engineering fields and encourage class participants to explore their own cultural contexts to impact their engineering and idea development.

Blog:

Decoding Dr. Dre: Urban Creativity in Engineering
www.decodingdrdre.blogspot.com

Websites to watch:

<http://beats.com>
<http://apple.com>

Class I (9/19/16)

Class Orientation:

1. Syllabus Orientation
2. Class Expectations
3. Questions

Supplemental Viewing:

<http://beats.com>

SECTION I
(Opportunity Creation, Identification, & Ideation)

Class II (9/21/16)

Hip Hop America Part I: Cultural Awareness in Hip Hop

Discussion: Opportunity Creation

1. How did the political landscape in Urban America cause Hip Hop to emerge?
2. What technologies were repurposed during this period that led to technical advancements in music play, performance, and recording?
3. What are examples of opportunities that emerged from disparate and cultural spaces?

Reading:

<http://www.pbs.org/opb/historydetectives/investigation/birthplace-of-hip-hop/>
<http://www.pbs.org/opb/historydetectives/feature/the-art-of-turntablism/>
<http://decodingdrdre.blogspot.com/2014/10/necessity-is-mother-of-all-invention.html>

Class III (9/26/16)

Hip Hop America Part II: Who are we?

Discussion: Identification

1. How did urban youth deemed the “Hip Hop Generation” harness and popularize the cultural practices that emerged as a result of shifting social policy?
2. What business opportunities were reflected during this period?

Reading:

https://www.stanford.edu/class/e297c/poverty_prejudice/mediarace/socialsignificance.htm
<http://www.rundmc.com/history/#prettyPhoto>

Class III (9/28/16)

It's what you love: Seeing and seizing opportunity in the paths you walk and the things you do

Discussion: Ideation

1. Like Dr. Dre, how has your environment stimulated you to think of an idea to build or do something that you love?
2. What role did cultural creativity play in this development?
3. When does creativity begin?
4. Did you have a course on creativity in middle or high school?

SECTION II

The Ghetto Genius Paradigm Intrapreneurship, Market Formation, and Bootstrapping

The Ghetto Genius Paradigm is about how urban youth culture has transferred and transformed space and language, but also created new cultural practices that have been monetized for over 30 years under the guise of Hip Hop Culture. These class sessions will explore Intrapreneurship, market formation, and bootstrapping within this context.

Class IV (10/3/16)

Finding his Voice: Going Way Back
Dr. Dre, Technology, and "Ghetto Geekism"

Discussion: Market Formation

1. Who is Dr. Dre?
2. What role did cultural creativity play in his development?
3. What impact did RUN-DMC Dj/ "Jam Master Jay" have on Dr. Dre?

Reading:

<http://www.villagevoice.com/2002-11-05/news/jam-master-jay-1965-2002/>

Class V (10/05/16)

Opportunity within: Dr. Dre begins wreckin' the world by wreckin' the cru

Discussion: Intrapreneurship

1. How did Dr. Dre use his experience with the World Class Wreckin' Cru to identify new opportunity within their business model?
2. How did management respond?
3. How did he validate his vision or demonstrate proof of concept?
4. How did this intrapreneurship experience impact his entrepreneurship?

Reading:

https://en.wikipedia.org/wiki/World_Class_Wreckin%27_Cru

Class VI (10/10/16)

Discussion: Bootstrapping and Intellectual and Creative Property

1. When, where, and how did Dr. Dre begin honing his skills as an entrepreneur?
2. Who benefitted from Dr. Dre's creative property?

Class VII (10/12/16)

Straight out of Compton: crazy brothas' with attitude, genius, and the spirit of entrepreneurship

Discussion: Social Impact

1. What did the emergence of NWA and Ruthless Records have on Hip Hop?
2. What sort of platform did it provide Dr. Dre?

Class VIII (10/19/16)

Blinded by the light: The cost of getting out of the hood

Discussion: Intellectual and Creative Property

1. How did Ruthless Records benefit from Dr. Dre's intellectual and creative properties?
2. When is the right time to begin protecting your interest?

Reading:

<http://en.wikipedia.org/wiki/N.W.A>

SECTION III

Intersectionality in STEM Education and Entrepreneurship

Class IX (10/24/16)

Aint Nuthin But a G Thang: the intersection, personification, and crossover appeal of Hip Hop

Discussion: Product Development

1. How did Dr. Dre ideate and develop his product?
2. What was his prototype
3. What prominent Hip Hop artists have emerged as a result of Dr. Dre's process?
4. Is Eminem a by-product of Dr. Dre's product development process? If so, how?

Viewing Link:

<https://www.youtube.com/watch?v=g5WKfLAsItw>

Class X (10/26/16)

B.E.A.T.S.

Bridging Engineering (Entrepreneurship), Arts, Technology, and Science in automotive, computer, audio, and IT science through Hip Hop

Discussion:

1. Why did HTC purchase a controlling interest in BEATS?
2. Did the deal work?
3. Why did HTC buy back its shares?
4. How did Jimmy Iovine and Dr. Dre respond?

Reading:

<http://www.androidpolice.com/2011/08/10/htc-confirms-partnership-with-beats-by-dr-dre-expect-devices-with-beats-technology-starting-fall-2011-video/>

http://dealbook.nytimes.com/2013/09/27/beats-secures-investment-from-carlyle-and-buys-out-htc/?_php=true&_type=blogs&_r=0

<http://venturebeat.com/2014/05/11/the-history-of-beats-electronics-from-inception-to-apple/>

Class XI (10/31/16)

Let me Ride: why BEATS beat up the street to Apple

Discussion:

1. Why did Apple buy BEATS?
2. How did the move impact Dr. Dre
3. How does Apple get the most out of this acquisition?

Reading:

<https://www.youtube.com/watch?v=i8MT5VRd85s>

<http://www.dailydot.com/technology/apple-beats-jimmy-iovine-dr-dre/>

<http://www.theverge.com/2014/5/9/5699032/beats-by-dre-visual-history/in/5470807>

<http://www.theverge.com/2014/5/9/5698158/what-apple-is-really-buying-with-beats/in/5470807>

Class XII (11/2/16)

Opportunity is knockin,' what is your algorithm?

Discussion: Social Impact and Grand Challenges

1. What makes Dr. Dre, Dr. Dre? What is his algorithm?
2. What are the elements that make up your algorithm?
3. How can you use your idea to meet various needs identified in Grand Challenges of Engineering?

Reading:

http://en.wikipedia.org/wiki/Dr._Dre

PROJECT HACKS AND FINAL PRESENTATION
Classes 11-7 thru 12-10

Over the next several weeks, you will be divided into groups to hack your idea. At the end of the hacking session, each group will rally around one idea to present to the class for the final. This exercise is about how to begin utilizing cultural context, your awareness of social challenges, and your personal experiences in your engineering endeavors.