



Broad College of Business

MICHIGAN STATE UNIVERSITY

Management 491, Section 002

Blockchain: Foundations and Applications

Fall 2018 Syllabus

Instructors

Instructor
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If you need me, email me. I check email all the time and am usually very responsive. I probably won't reply to your texts because usually I don't know who they are from. Please don't call me. I do not like unscheduled phone calls.

Instructor Introduction:

Neil Kane is the MSU Director of Undergraduate Entrepreneurship and a long-time entrepreneur. He has started more than a dozen companies in multiple industries and has raised over \$20 million in venture capital. He has an undergraduate degree in mechanical engineering from the University of Illinois at Urbana-Champaign and an MBA from The University of Chicago.

Read more about him on his [biography page on the MSU entrepreneurship portal](#). His [LinkedIn profile](#) contains additional background material. His [blog](#) contains a comprehensive list of his writings about entrepreneurship and leadership including the pieces he has written for [Forbes](#).

Course Information

Course Description and Overview:

Much like the Internet in the 1990s, blockchain is expected to become a critical technology platform that will underpin some of the most transformative and disruptive innovations ranging from cryptocurrencies (like Bitcoin) to contract law to privacy to cybersecurity. This comprehensive course on both the technology behind blockchain and the multiple opportunities for its application will give students an excellent foundation into understanding what blockchain is and how it may be applied. The course will be a series of lectures and interactive sessions taught by

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faculty from entrepreneurship, law, computer science, economics, accounting and supply chain management as well as many guest lecturers. Class participation will be a significant component of the overall grade, and a group project will be assigned. Lectures are once per week for two hours, and an additional hour of work will be assigned and completed outside of class. Enrollment is limited, and a preference will be given to juniors, seniors and students earning the Minor in Entrepreneurship and Innovation.

This course will consist of two hours per week in classroom sessions and one hour per week as arranged (*i.e.*, outside readings, watching videos and potentially attending events).

Textbook & Course Materials:

Students will not need to purchase a text book, but many readings (all available online) will be assigned.

Recommended Texts & Other Readings:

This list of readings will be available online at: <https://goo.gl/7dA2ir>

Any needed materials that are not available publicly will be posted for students on D2L.

Prerequisite:

MGT 315 or 325. Or a waiver from the instructor.

Students should have a good knowledge of business fundamentals as well as an understanding of information systems. Because this is an interdisciplinary course, some students may need to do additional readings in order to become familiar with background concepts, but as much as possible, all necessary material will be covered in class or via assigned readings. There is no requirement to have any specific understanding of blockchain, cryptography or accounting prior to the start of the class although it is definitely helpful.

Course Objectives:

Blockchain is complex and understanding it requires an appreciation for concepts in business, computer science, law, economics and entrepreneurship. As a result, the course will be taught by faculty from different departments including: computer science, economics, law, supply chain management and entrepreneurship as well as guest lecturers from industry. Additionally, the field of “blockchain” is new and exceptionally dynamic. Some things that are true about blockchain today may not be true by the time the course ends.

Students who complete the course successfully will understand what blockchain is, how/why it was developed, how it can be used and how to apply it in new contexts.

After successfully completing this course, students will be able to:

- Explain what blockchain is and how it works
- Describe how bitcoin operates and how it relates to blockchain
- Evaluate and describe other applications of blockchain
- Articulate and describe the limitations of blockchain
- Conceive new applications for blockchain and defend their business and technical feasibility.

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Class participation and engagement will be significant components of the student's final grade. A group project will be assigned that will culminate in the presentation of a white paper and/or a business pitch during the last week of class. The thrust of the group project will be to conceive and research the feasibility and viability of a new application of blockchain, whether it be for a new type of altcoin, an initial coin offering, or a new business application. Students may be assigned to groups to ensure a good cross-section of disciplines are represented given the multi-disciplinary nature of blockchain and the course itself.

Quizzes and other assignments will be interlaced throughout the semester.

Students will meet the course objectives through the following actions:

- Attending class and being an active participant (this means actively listening, engaging the lecturers and other students, being attentive, not being distracted) in the debates and discussions in class.
- Attending outside events as assigned.
- Completing reading assignments.
- Being a valuable participant in a group project. Peers will review each other's contributions.
- Students may be asked to give presentations to the rest of the class on topics in the syllabus (as a hypothetical example, how to set up a digital wallet to trade cryptocurrencies...).

Group projects

- In lieu of a final exam, students will be expected to present the results of their group projects to instructors and visiting experts who will be assembled in a "review panel".
- Students will be assigned to groups to ensure that different disciplines are represented in each group.
- Once groups are formed, students will not be able to drop the class.
- Potential roles for each group are: [final structure TBD]
 - Tech expert
 - Business expert
 - Legal/regulatory expert
 - Scribe or author

Course Requirements:

- Just about everything in this course will be happening online, so a computer and access to the internet will be absolutely essential.
- Students will not need to purchase a textbook.
- Access to Desire2Learn (D2L) is required.

Course Structure:

The course meets once per week for two hours; other assignments (reading, videos, event attendance) will also be assigned to make up the third hour (this is a three credit-hour course).

Course Outline/Schedule

The course outline, including the sequence of lectures and information about the lecturers can be found online at: <https://goo.gl/7dA2ir>

Grading Policy

Assessment Dates:

Final group presentations will most likely occur on December 4, 2018 or December 11, 2018.

Grade Dissemination:

Grades will be based on:

- Group project
- Class attendance and participation
- Peer review
- Quizzes
- Other assignments TBD

An attempt will be made to give students feedback around the midpoint of the semester so they have an opportunity to correct any deficiencies (if they exist).

Graded Course Activities:

The table below describes the graded course activities including points and activity description. The first column includes the points that are possible, and the second column includes a description for each activity.

Percentage	Description
25%	Class attendance, engagement and enthusiastic participation in class discussions
10%	Peer review
35%	Group project
30%	Other assignments and quizzes TBD

Letter Grade Assignment (Grading Scale):

The table below describes the relationships between letter grades, percent, and performance. The first column describes the letter grade. The second column describes the percentage range associated with that letter grade. The third column describes the performance represented by that letter grade and percentage.

Letter Grade	Percentage	Performance
A (4.0)	93 to 100%	Excellent Work
A- (3.5)	90 to 92%	Nearly Excellent Work
B+ (3.0)	87 to 89%	Very Good Work

B (2.5)	80 to 86%	Good Work
C (2.0)	70-79%	Passing
D (1.5)	60 to 69%	Poor Work
F (0)	0 to 59%	Failing Work

Other Course Policies

Distractions and decorum:

Be Professional: It is common courtesy to put devices such as cell phones and laptops away during presentations and discussions unless you must use them to take notes. So, the rule is to turn off cell phones during class time and put them away. Time spent in the classroom is designed to promote your learning; make the most of that time to grow and be the professional you aspire to become.

Feel free to use a laptop, but ONLY for class related work. Everyone can tell when you are doing something off topic and being distracted by your devices, including the lecturers. If you do this, you will be called out on it, and there will be consequences proportionate to the offense ranging from a verbal warning to being asked to leave, or in flagrant cases, getting a zero on the assignment or test. Don't forget, a significant component of the grade is based on class participation and engagement.

Anyone caught in class using their computers for social media, shopping, watching movies or any other obviously irrelevant purpose will automatically lose 3% points off their final grade. Each time this occurs, the student will automatically lose 3% of their final grade.

Entrepreneurship and Innovation Option Experiences

Students who wish to complete an E&I Experience in this course will be highly encouraged by the instructor. A student may propose their own project type, and the instructor will offer several templates to the students.

Further details about the program can be found at: <https://entrepreneurship.msu.edu/experiences/>

Important Dates

The table below shows major course events, and the dates on which they occur. Column one lists the course events; column two lists the dates.

Course Event	Date
Drop/Swap Deadline	September 5, 2018
Grade Forgiveness Deadline	Per university policy
Withdrawal Deadline	September 5, 2018
Final Examination	Week of December 11, 2018

Attendance Policy:

Attendance is expected. More than that, students are expected to come to class prepared to be participants in the discussion. Engagement, enthusiasm and contribution to the class are significant

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elements of a student's participation grade. Unexcused absences will count negatively toward a student's grade. None are automatically allowed.

Excused absences will be granted for exceptional situations per university policy. If a student has the need to miss class, they should email the instructor as early as possible.

Late Work Policy:

TBD

Extra Credit Policy:

TBD

Group Work Policy:

Students are encouraged to work in groups and to complement one another. Projects can be turned in as a group, and everyone will get the same grade for the assignment. However, students will also have the ability to provide a peer review which will allow the instructor to know, confidentially, who was an active participant and who contributed the most (and who failed to pull their weight). These peer reviews will be significant inputs for each student's final grade.

Tolerance of Ambiguity

Blockchain is a very new technology and its development is highly dynamic. New technology innovations are occurring literally every week. The regulatory and economic environment surrounding applications of blockchains, like cryptocurrencies, changes daily. As a result there is a near 100% chance that some aspects of the syllabus will change during the semester.

Aside from all the externalities, weather events and the availability of speakers may cause other changes.

Flexibility and Adaptability is one of the eight core domains of the entrepreneurial mindset index (EMI). The [Learning Objectives White Paper](#) has further detail about the EMI. As a result, students will be expected to exhibit this trait to succeed in this course. And if that weren't enough, just about everything regarding blockchain today requires flexibility and adaptability.

Student Expectations

The All-University Policy on Integrity Of Scholarship and Grades:

All participants in this class are held to the standard set by MSU's Policy on Integrity of Scholarship and Grades. The policy can be read in full at the [MSU Ombudsperson's website](http://splife.studentlife.msu.edu/regulations/selected/integrity-of-scholarship-and-grades) (<http://splife.studentlife.msu.edu/regulations/selected/integrity-of-scholarship-and-grades>)

Undergraduate Entrepreneurship and Innovation Declaration of Principles

As described on the home page of MSU's [entrepreneurship portal](#), students can rely on the following values to be on display in this class:

WHAT WE STAND FOR

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It is vitally important for us, as Michigan State University's community of entrepreneurs, to commit to our stakeholders—our students, their parents, our alumni, and our community—and to be clear about our values. You can count on us adhering to our Declaration of Principles:

- Our Students Come First. We mean it.*
- We Believe in Honesty and Transparency.*
- Our Community Is Built with Uncompromising Integrity.*
- Inclusion Is the Bedrock of Our Community.*
- Freedom of Constructive, Respectful Expression.*
- Accountability—to Our Community, Our Stakeholders, and to One Another.*
- Respect for the Individual Is Essential.*
- The Expectation of Excellence—We Demand It of Ourselves and We Expect It of Our Students.*

*Signed,
MSU Undergraduate Entrepreneurship and Innovation*

Eli Broad College of Business Honor Code:

In addition to MSU policies, all students are expected to comply with the Broad College Undergraduate Honor Code (see the code on the [Broad College honor code website](#)).

Spartan Code of Honor:

On March 22, 2016, The Associated Students of Michigan State University (ASMSU) adopted the following Spartan Code of Honor:

“As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.”

Disability Access:

Students must inform the instructor of any accommodations needed. Information related to disability access is available on the [Resource Center for Persons with Disabilities \(RCPD\) website](#). To make an appointment with a specialist, call: (517) 353-9642 Or TTY: (517) 355-1293 or visit the [RCPD website](#).

Americans with Disabilities Act Accommodations:

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the [Resource Center for Persons with Disabilities](#) at 517-884-RCPD or on the web. Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation (“VISA”) form. Please present this form to the instructor at the start of the term and/or two weeks prior to the accommodation date (test, project, etc). Requests received after this date will be honored whenever possible.

Expected Hours of Participation/Work Outside Class Per Week:

Five hours/week in addition to the two hours/week the class meets.

Grief Absences:

If a student experiences death of a family member or emotional distress from a similar tragedy, refer to [MSU's Grief Absence Policy](#).

Academic Conduct Policy:

See the student handbook.

Student Rights and Responsibilities:

Students have a range of support and information options available to them to discuss actions or activities related to their academic, personal or professional lives at MSU. These rights and resources are detailed on the [ombudsperson's website](#).

SIRS (Student Instructional Rating System):

Refer to [MSU's SIRS Online website](#) if using online SIRS for course evaluations.

Limits to Faculty/Student Confidentiality; Mandatory Reporting:

This class will act in accordance with university policy which can be found on the [Relationship Violence and Sexual Misconduct website](#).

Religious Observances:

Students are expected to notify their instructor in advance if they intend to miss class to observe a holy day of their religious faith. For a current schedule of major religious holidays, see the [office of inclusion and intercultural initiatives](#).

Emergency Procedures:

In the event of an emergency arising within the classroom, the instructor will notify the student of what actions that may be required to ensure their safety. It is the responsibility of each student to understand the evacuation, "shelter-in-place," and "secure-in-place" guidelines posted in each facility and to act in a safe manner.

If an evacuation is ordered, please ensure that you do it in a safe manner and facilitate those around you that may not otherwise be able to safely leave. When these orders are given, students have the right as a member of this community to follow that order. Also, if a shelter-in-place or secure-in-place is ordered, please seek areas of refuge that are safe depending on the emergency encountered and provide assistance if it is advisable to do so.