Spring 2019

CIS 356 Digital Trends and Transformations

Douglas Ng  
CUNY Lehman College, douglascng@gmail.com

NYC Tech-in-Residence Corps  
rdomanski@sbs.nyc.gov

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Digital Trends & Transformation

Course Syllabus

Do you want to be a Tech Leader? It takes more than good code. Understand how to make the technical, strategic, and ethical decisions behind today’s emerging technologies.

Gillet Hall 231
Tuesdays & Thursdays 7:50p-9:30p

Spring 2019

In Partnership with the NYC Tech-in-Residence Corps
 ABOUT THE COURSE

It's an exciting time to be in the world of technology. The digital transformation market will be worth half a trillion dollars by 2022. With the rapid evolutions happening in the tech sector (and all the related industries that rely on it), what can we as IT professionals do to better understand these emerging technologies to advance in our careers, to effectively lead organizations, as well as to develop meaningful and ethical systems. This course will help you answer this question by not only “talking the talk” but by also “walking the walk” to be a successful tech leader.

Led in collaboration among industry, government, and academic partners, we will provide you with the contemporary perspectives on the latest IT trends that you should know in 2019, illuminate the opportunities and challenges that accompany these changes, and equip you with the pragmatic, professional skills that you need to develop.

Course Roadmap

WHAT YOU WILL LEARN

We will analyze four enabling technologies that are transforming the IT and business worlds and gain a better understanding of the technical, strategic, and ethical decision making that are necessary to create competitive advantage and maximum societal impact.

Module 1

Technical

Cloud Computing

Module 2

Database Management

Module 3

Internet of Things & Mobile

Module 4

Machine Learning & Artificial Intelligence

Strategic

Agile Product Management

Blockchain

Design Thinking & UX/UI

RPA, Bots & Cyber-Physical Systems

Ethical

Cybersecurity & IT Governance

Compliance, Data Protection & Privacy

Dark Patterns, Addictive Games & VR Boundaries

Ethical Algorithms

COURSE MATERIALS

Pre-Class Activities: A digital resource repository will be provided for free on each topic.

In-Class Activities: Case studies and simulations are part of a Harvard Business Publishing course pack.

We plan to end with a “Tech for Social Good” panel on the day before finals. Subject to change as we adapt the course to be relevant and meaningful to you!
Grading Policies

HOW YOU WILL BE EVALUATED

This course aims to equip you with the necessary knowledge and skills to make strategical IT management decisions. There may not necessarily be a right or wrong answer, but your analysis will matter the most. Because the content of the course is very experiential and discussion based, class participation is highly weighted.

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<thead>
<tr>
<th>Learning Activities</th>
<th>Total Point Value (out of 1000)</th>
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<tbody>
<tr>
<td><strong>Class Participation</strong> <em>(26 sessions, 25 pts each)</em></td>
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<tr>
<td>- Are you prepared? (10 pts/session) - pre-class assignments</td>
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<tr>
<td>- Are you present and actively engaged? (15 pts/session)</td>
<td>650 points</td>
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<tr>
<td><strong>Module Assessments</strong> <em>(4 modules, 50 pts each)</em></td>
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<td>Write a paper (approx. 2 pages) applying the module concepts to industry trends, your career goals, and for societal good.</td>
<td>200 points</td>
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<td><strong>Final Exam: You’re the CTO! (case analysis)</strong></td>
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<td>You will have the opportunity to become the CTO and asked to apply the course concepts to make a quality decision.</td>
<td>150 points</td>
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<td><strong>Bonus Assignment</strong> <em>(prior approval required)</em></td>
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<td>- Attend an industry event (20 pts/full day, up to 50 pts)</td>
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<td>- Earn an industry certificate (10 pts, up to 30 pts)</td>
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<td>- Networking Assignment (5 pts/contact, up to 20 pts)</td>
<td>up to 100 points</td>
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Course Policies: This course is governed by CUNY Lehman College’s Honor Code, Computer Access, and Disability Accommodations policies. If you have any questions or concerns, please contact your instructor (Douglas Ng).

COURSE INSTRUCTORS

**DOUGLAS C. NG**
Adjunct Lecturer

Douglas Ng is a digital strategist, researcher, and educator pushing the boundaries at the intersection of emerging technologies, new media, and design psychology to help organizations navigate the socioeconomic ramifications of disruptive innovation in the age of digital transformation.

Learn more at: douglascng.com | douglascng@gmail.com

**RAJ MEHTA**
Guest Lecturer

Raj Mehta is a Senior Digital Solutions Consultant at Ernst & Young in the financial domain with a core focus in Digital Technologies & Transformation, IT Strategy and Infrastructure, Cloud Architecture, SDLC, IT Service Management, and IT Risk Management.

Raj.Mehta@ey.com

We also plan to bring in other guest lecturers who are industry experts in these topics!
“At least 40% of all businesses will die in the next 10 years if they don’t figure out how to change their entire company to accommodate new technologies”

- John Chambers

Executive Chairman, Cisco Systems

Be the change.