

RMI 8400 – InsurTech: New Technologies in Insurance Markets

Course Syllabus – Spring 2021

(Draft – Subject to Change)

Instructor:	TBD
Class Schedule:	TBD
Classroom:	TBD
Office Hours:	TBD
Course Description:	<p>This course will explore how technology is changing the pricing, processes, and products in insurance markets. We will use lectures, case discussions, guest speakers, and student presentations to learn about areas in which technology is transforming insurance markets. Topics include:</p> <ol style="list-style-type: none">1) Internet of Things in Insurance markets2) Automated underwriting, claims processing, and verification3) Blockchain for claims processing and verification4) Big data/machine learning in actuarial science and related ethical issues5) Telematics
Course Objectives:	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none">• Describe a variety of applications of technology to the insurance industry.• Think critically about the viability of each of these innovations and identify opportunities and threats.• Discuss insurtech concepts confidently and expertly in front of different audiences.
Contributing Texts:	<p>The Internet of Things in insurance: Shaping the right strategy, managing the biggest risks, EY 2016.</p> <p>Insurers need to plug into the Internet of Things – or risk falling behind, McKinsey & Company, 2016.</p> <p>The insurance AI Imperative, Cognizant, 2019.</p> <p>Optimizing Claims Organizations? Financial Results Through Telematics, Octo.</p> <p>How Computer Vision is changing Insurance, Elizabeth Cahan, 2019.</p> <p>Usage-Based Insurance and Vehicle Telematics: Insurance Market and Regulatory Implications, Center for Insurance Policy and Research study, 2015.</p>

Class Schedule and Activities:

CLASS	TOPIC AND COURSE CONTENT
Week 1	Introduction to Insurance Technology
Week 2	Mini case studies: Lemonade; Oscar; Guidewire; Verisk; Friendsurance; Metromile
Week 3	Internet of Things in Insurance, Telematics; Guest Lecture
Week 4	Case studies in Telematics: Carrot; Zurich; Nationwide
Week 5	Artificial Intelligence in Insurance; Case Study: Allstate's Intelligent Agent
Week 6	Health Informatics and Insurance; Guest Lecture
Week 7	Computer Vision in Insurance; Case Study: Hurricane Harvey
Week 8	Rideshare and E-scooter Insurance; Guest Lecture
Week 9	Introduction to Cryptography and the Blockchain
Week 10	Blockchain applications in record keeping, claims management, p2p insurance
Week 11	Smart Contracts: agriculture and travel insurance; Case study: Blockchain in Healthcare
Week 12	The B3i Consortium; Guest Lecture
Week 13	Challenges: Regulation, Security, Scalability, Systems Integration and Standardization
Week 14	Ethical Issues: Privacy and Discrimination in the age of InsurTech