WENHAN GAO

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RELATED COURSES

AMS 311, Probability Theory Grade: A, 4.0/4.0

· Textbook: A First Course in Probability, 10th Edition, by Sheldon Ross

MAT 310, Linear Algebra Grade: A, 4.0/4.0

· Textbook: "Linear Algebra Done Right",3rd Edition, by Sheldon Axler

AMS 595, Fundamentals of Computing Grade: A, 4.0/4.0

· Projects in Python, Matlab, and C++.

EST 320, Communication Tech Systems Grade: A, 4.0/4.0

· Textbook: Principles of Computer Networks and Communication, Dumas, M. Barry, Schwartz, Morris, Pearson/Prentice Hall, Upper Saddle River, NJ 2009, ISBN10: 0-13-167264-9

MAT 342, Applied Complex Analysis Grade: A, 4.0/4.0

· Textbook: "Complex Variables and Applications", 9th edition; Brown and Churchill ISBN-13:9780073383170.

EST 305, Applications Software for Information Management Grade: A, 4.0/4.0

· Textbook: "VBA for Modelers: Developing Decision Support Systems with Microsoft Excel", 4th edition; S. Christian Albright; Duxbury, 2012; ISBN-10: 1133190871.
· Textbook: "Management Science: The Art of Modeling with Spreadsheets", 4th edition; PowelL and Baker; Wiley, 2013; ISBN-10: 1118582691.
· Final Project written in VBA programming: Projecting the Effectiveness of Covid Vaccines(SIR model) with Excel VBA User Interfaces

AMS 333, Mathematical Biology Grade: A, 4.0/4.0

· Textbook(recommended): "Essential Mathematical Biology", by Nicholas Britton, Third, Edition; Springer; ISBN: 9781852335366
· Projects written in Matlab: Influenza Epidemics; Population Dynamics: Lotka-Volterra Model and Logistic Model

MAT 341, Applied Real Analysis Grade: A, 4.0/4.0

· Textbook: David Powers, Boundary Value Problems and Partial Differential Equations,6th ed., Elsevier (Academic Press), 2010.

MAT 331, Computer-Assisted Math Problem Solving Grade: A, 4.0/4.0

· Projects written in Python: Cryptograph(Caesar, Vigenere, RSA), Apollonian packing(fractal), Coloring Julia/Mandelbrot Set

MAT 320, Introduction to Analysis Grade: A, 4.0/4.0

· Textbook: Introduction to Real Analysis (4th edition) by Bartle and Sherbert

AMS 303, Graph Theory Grade: A, 4.0/4.0

- Textbook: Introduction to Graph Theory, Fifth Edition, by R. Wilson, customized for Stony Brook
- Textbook: Applied Combinatorics, Sixth Edition, by A.Tucker, John Wiley & Sons.
- Final Project on cryptography, I wrote a Python program to assist in decoding the ciphertext since it's time consuming to do by hand.

MAT 312, Applied Algebra Grade: A, 4.0/4.0

- Textbook: Numbers, Groups and Codes (2nd edition) by Humphreys and Prest

ET 704, Networking Fundamentals I Grade: A, 4.0/4.0

- Textbook: Network+ Guide to Networks, 8th Edition - 9781337569330

AMS 315, Data analysis Grade: A, 4.0/4.0

- Textbook(recommended): "An Introduction to Statistical Methods and Data Analysis", by Ott and Longnecker, 7th Edition, Cengage Learning; 2015; ISBN 9781305269477.
- Final Project written in R(programming).

AMS 301, Finite Mathematical Structures Grade: A, 4.0/4.0

- Textbook: Applied Combinatorics, Sixth Edition, by A.Tucker, John Wiley & Sons.

MAT 360, Geometric Structures Grade: A, 4.0/4.0

- Textbook: Euclidean and Non-Euclidean Geometries Development and History (4th edition) by Marvin J. Greenberg

AMS 361, Applied Calculus IV: Differential Equations Grade: A, 4.0/4.0

- Textbook: "Lectures, Problems and Solutions for Ordinary Differential Equations" by Yuefan Deng, World Scientific, Second Edition; October 14, 2017; ISBN: 978-981-3226-13-5

AMS 310, Survey of Probability and Statistics Grade: A, 4.0/4.0

- Textbook: "Probability and Statistics for Engineering and Science with Examples in R (Second Edition)" by Hongshik Ahn, Cognella, Inc., 2019, ISBN: 978-1-5165-3110-3.

AMS 210, Applied Linear Algebra Grade: A, 4.0/4.0

- Textbook: "Introduction to Linear Algebra: Models, Methods and Theory", by Alan Tucker, XanEdu Publishing, 1995; ISBN: 9781506696720

MA-471 Introduction to Discrete Structures Grade: A, 4.0/4.0

- Textbook: Discrete Mathematics and Its Applications, 6th Edition, by Kenneth Rosen

MAT 203, Calculus III with Applications Grade: A, 4.0/4.0

- Textbook: Multivariable Calculus, 8th Edition, by James Stewart

AMS 161, Applied Calculus II Grade: B, 3.0/4.0

- Textbook: Single Variable Calculus: Early Transcendentals, 8th Edition, by James Stewart

MA-441, Analytic Geometry and Calculus I Grade: A, 4.0/4.0

- Textbook: Single Variable Calculus: Early Transcendentals, 8th Edition, by James Stewart

CERTIFICATES(CLICK TITLE TO VIEW CERTIFICATES)

Deep Learning Specialization by Andrew Ng(DeepLearning.AI) Coursera

· Five Courses in the Deep Learning Specialization. Learn to build neural network architectures such as Convolutional Neural Networks, Recurrent Neural Networks, etc.. and to make NNs better with strategies such as Dropout, BatchNorm, and Xavier/He initialization. Implemented some industry applications using Python and TensorFlow.

Getting Started with AWS Machine Learning Coursera

· Key problems that Machine Learning can address and ultimately help solve.

Python Specialization Coursera

· Five Courses in the Python Specialization offered by University of Michigan. Fundamental programming concepts including data structures, networked application program interfaces, and databases.

Mastering Programming with MATLAB Coursera

· Advanced concepts related to functions such as recursion and function handles.
· Learn basics of Object Oriented Programming and how to write efficient programs.
· Learn to write Live Scripts and create GUIs.