

# Enrico Tomassoli, MS, PhD, PE

## Courses with grades relevant to Data Scientist Role

### BS+MS in Civil Engineering (Structural Concentration) @ University of Perugia – Italy

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- **Mathematical Analysis I**  
Relevant Topics: *Calculus, integrals, derivatives, topology, series*  
Grade: 30/30 (A+)
- **Mathematical Analysis II**  
Relevant Topics: *Calculus, integrals and derivatives in N-dimension space, differential equations*  
Grade: 30/30 (A+)
- **Geometry**  
Topics: *Linear algebra, analytic geometry, matrixes and matrix operations*  
Grade: 28/30 (A)
- **Mathematical Methods for Engineering**  
Relevant Topics: *Advance calculus, coding, num. methods, optimization, Monte Carlo methods, Fourier series, interpolation*  
Grade: 26/30 (A-)
- **Electronic Calculators**  
Relevant Topics: *Coding and computer architecture*  
Grade: 27/30 (A-)
- **Topography**  
Relevant Topics: *Error theory, statistic principles and methods, statistical treatment of observations, 3D analytic geometry*  
Grade: 28/30 (A)
- **Science of Construction**  
Relevant Topics: *Calculus applied to materials and structures, stress and strain tensor and related operations*  
Grade: 30/30 (A+)
- **Theory of Structures**  
Relevant Topics: *Calculus applied to structural system, structural system matrixes, resolution of dynamic equations*  
Grade: 30/30 (A+)
- **Computational Mechanic of Structures**  
Relevant Topics: *Software implementation, structural system matrixes, resolution of static and dynamic equation using Eigen-values and Eigen-vectors*  
Grade: 30/30 (A+)

Source for Italian Grading equivalency: [https://en.wikipedia.org/wiki/Academic\\_grading\\_in\\_Italy](https://en.wikipedia.org/wiki/Academic_grading_in_Italy)

### BS+MS in Civil Engineering (Construction Management Concentration) @ New York University (NYU) – US

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- **Risk Analysis**  
Relevant Topics: *Statistics, risk analysis*  
Grade: A
- **Construction Operation Analysis**  
Relevant Topics: *Information technology for construction*  
Grade: A
- **Construction Modeling Technique**  
Relevant Topics: *Information technology for construction*  
Grade: A
- **Information System Project Management**  
Relevant Topics: *Information technology for construction management*  
Grade: A
- **Managing and Leading**  
Relevant Topics: *Leadership course*  
Grade: A

- **What is Data Science?**  
Relevant Topics: *Overview of what data science is today*  
Grade: 100.00%
- **Tools for Data Science**  
Relevant Topics: *Jupyter Notebooks GitHub, Watson Studio, proficiency preparing a notebook*  
Grade: 100.00%
- **Data Science Methodology**  
Relevant Topics: *Use of data in decision making, understanding of questions being asked, applying data in problem solving*  
Grade: 100.00%
- **Python for Data science, AI & Development**  
Relevant Topics: *Application of Python fundamentals to drive business solutions across industries*  
Grade: 100.00%
- **Databases and SQL for Data Science with Python**  
Relevant Topics: *Working knowledge of databases and SQL, building and running SQL queries*  
Grade: 98.95%
- **Data Analysis with Python**  
Relevant Topics: *Perform statistical analysis, create data visualizations, predict future trends from data using Python, importing and cleaning datasets, data frame manipulation, summarizing data, building machine learning regression models building data pipelines, Pandas, Numpy, Scipy, and scikit-learn libraries*  
Grade: 99.27%
- **Data Visualization with Python**  
Relevant Topics: *Techniques for presenting data visually, Python data visualization libraries Matplotlib, Seaborn, Folium*  
Grade: 100.00%
- **Machine Learning with Python**  
Relevant Topics: *Purpose of ML, supervised and unsupervised learning, model evaluation, ML algorithms, regression, classification, clustering, sci-kit learn and SciPy*  
Grade: 100.00%
- **Applied Data Science Capstone**  
Relevant Topics: *Capstone project using skills matured during previous courses*  
Grade: 97.00%