Preparation plan and prerequisites

Math (all required)
- Calculus (UCB Equivalent: Math 1A, Math 1B, Math 53)
- Linear Algebra (UCB Equivalent: Math 54)
- Partial Differential Equations (UCB Equivalent: Math 126)
- Statistics (2 upper-division level courses - UCB Equivalent: Econ 140, 141 - please scroll down for course descriptions; Statistics 101, 102, 134, 135)
- Numerical Analysis (UCB Equivalent: Math 128A)

Programming (all required)
- C++/C
- Python (advanced level)
- Machine Learning (advanced level)

Finance (2-3 courses required)
- Macroeconomics ECON 101B
- Corporate Finance
- CFA level 1 (https://www.cfainstitute.org, recommended)

Communications Skills (required to demonstrate strong skills; examples below)
- Business Writing/Communications Coursework
- Toastmasters – not required but can be a great way to improve public speaking skill.

Work Experience/Finance Internship (recommended, but not required)

MFE Pre-Program Courses
- Math
- Statistics
- Python

Exams
- GRE or GMAT (required for all candidates who will not hold a Ph.D. before the start of the program; no preference on which exam to take)

- TOEFL/IELTS (required for international students)- Minimum score of 90 on iBT

Books (strongly recommended for all candidates)
- Heard on the Street: Quantitative Questions from Wall Street Job Interviews by Timothy Crack
- A Practical Guide to Quantitative Finance Interviews by Xinfeng Zhou
- Cracking the Finance Quant Interview: 51 Interview Questions and Solutions by Jean Peyre
- Vault Guide to Advanced Finance & Quantitative Interviews
- Quant Job Interview Questions and Answers
- Frequently Asked Questions in Quantitative Finance
- Options, Futures, and Other Derivatives by John Hull
- Principles of Corporate Finance by Brealey, Myers, and Allen
- The Wall Street Journal, the Financial Times, and the Economist
- Macroeconomics by Charles Jones

Places to find courses-
- UC Berkeley Extension- extension.berkeley.edu
- NetMath at UIUC- netmath.illinois.edu
- Columbia Video Network- www.cvn.columbia.edu/
- Stanford SCPD- scpdweb.stanford.edu
- Harvard Extension- extension.harvard.edu
- Applied Math Online at UW-amathonline.uw.edu
- University of Athabasca- http://www.athabascau.ca/syllabi/math/math476.php (achieve 80% or better)
- Coursera*
- edX/Other MOOC courses*

*Please note that courses taken through a MOOC platform should be taken for the certificate option.