

# What Can Math Majors Accomplish in the Financial World

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# Which path? Banking

## Directions

**Banking: private equity, investment banking, sales and trade, research, quants**

Firms: Bulge Bracket, Boutique banks

**Business Advisory / Consulting**

Firms: Mckinsey, EY, Deloitte

**Hedge funds, mutual funds**

## Who are your competitors?

- Business majors: accounting, finance, etc.
- Other liberal arts majors
- Ivy Leaguers
- MBA graduates

## What are the skills you need?

- Understanding of numbers
- Business acumen
- Ability to read financial reports
- Excel, Powerpoint
- Interpersonal skills
- Networking skills

## What are recruiters looking for

- High GPA
- Leadership skills
- Charisma
- Passion
- Quick thinker (give me an example...)
- Logical reasoning (case study)
- Remain good relationship

## Graduate school or not?

- Working experience is essential
- MBA program
- If you want to go front office, it's not necessary to go to grad school for financial engineering/financial mathematics

## Recommended courses

- MAT 221/222 – Statistics
- MAT requirements
- Economics: 203
- Finance: 301
- Accounting: 151, 201, 252
- GET 236, 336

# Which path? Quants

## Directions

### **Front office quants**

On the trading floor with traders and brokers, high stress, higher salary

### **Back office quants**

Risk management, back ended research, less stressful

## Who are your competitors?

- PhD in math, physics, computer science, engineering...
- Financial engineers/mathematicians

## The skill set you need

- Very strong math background
- Very strong modeling skills
- Coding: C++, Java, ...
- Understanding of Economics and Finance

## What are recruiters looking for

- Problem solving skills
- High GPA won't cut it anymore
- No high requirement for interpersonal skills
- Strong math background

## Graduate school or not?

Definitely! Either financial engineering or financial mathematics.

We have some alumni who are pursuing these programs and they can be very good resources.

## Recommended courses

- MAT 526
- Game theory, graph theory
- ECN 521 or MAT 521
- ECN 522, ECN 505
- Computer Science
- Other upper level math/economics classes

## The mutual skills

- Resume and LinkedIn
- Solid foundation of math / understanding of numbers
- Ability to use math skills in financial settings
- Presentation skills
- Example: [My LinkedIn Profile](#)

## Resources recommended to everyone

- Animal Spirit (Bob Shiller)
- The Intelligent Investor (Graham)
- Have your own profile
- WSJ, NYT deal book
- Career Service: seminars, immersion programs
- Harvard 2+2, FM or FE programs