



TEXAS TECH UNIVERSITY™



The STEM MBA

Rawls College of Business

Texas Tech University

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PURPOSE



- Discuss trends in MBA programs.
- Describe the intent of the STEM MBA program at Texas Tech University.
- Review current status of the program.

MBAs for Specialized Audiences

The STEM MBA at Texas Tech University



Problems We Faced

PROBLEMS WE FACED



PROBLEM 1: Serving too many markets.

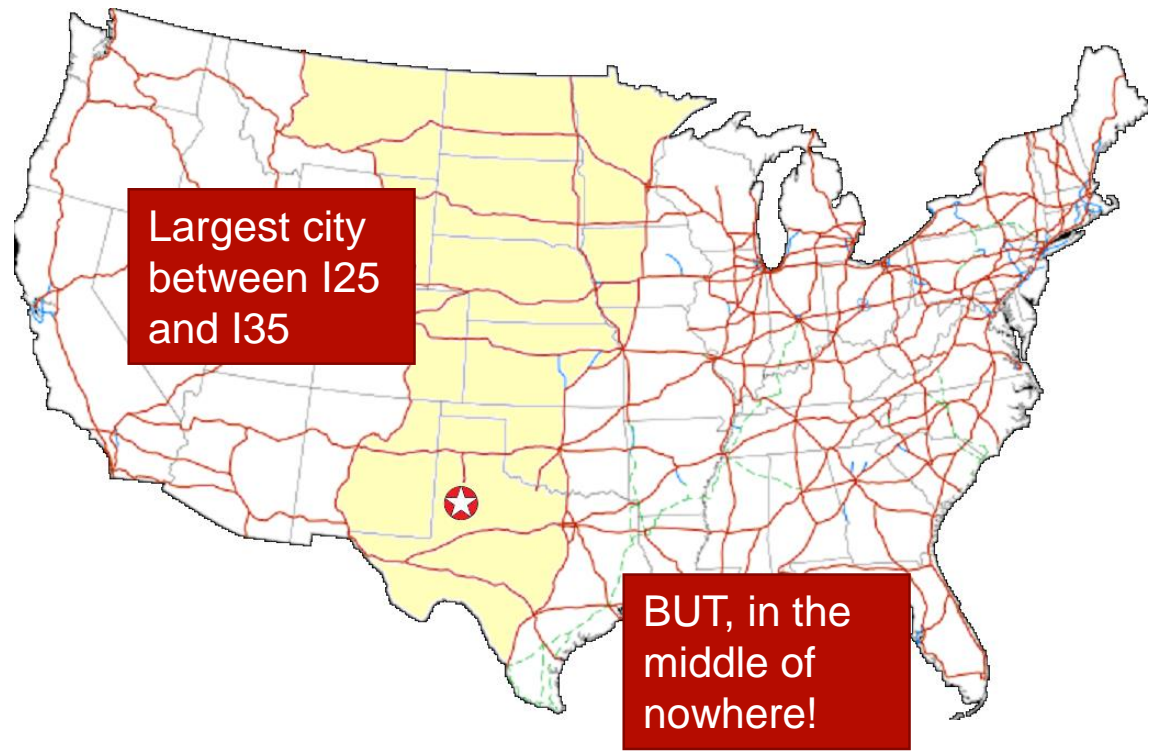
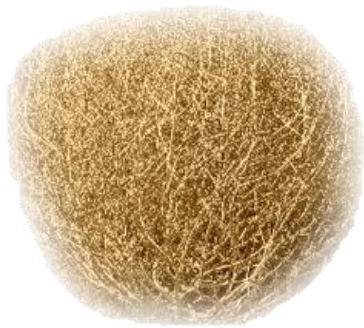
- Full-Time MBA (with over 15 concentrations)
- Part-Time Night MBA
- Physician's MBA
- Attorney's MBA
- Working Professional MBA (Weekend and Week-Block)
- Dual degrees with over 10 programs outside the college
- MS degrees in Acct, Fin, Mgmt, Stat, MIS, HOM

**We were
spread too
thin!**

PROBLEMS WE FACED



PROBLEM 2: Isolation





PROBLEMS WE FACED

Question: How do we convince Dallas professionals to quit a \$100,000 / year job to come to Lubbock for an MBA?



PROBLEMS WE FACED



PROBLEM 3:

Ranking penetration



Business schools do not want to give up their ranking!

(even if you ask them nicely)

WHAT DID WE HAVE TO WORK WITH?



- **Large University** – 33,000 students
- **Good Reputation** – primary university in western part of the state, appreciated in DFW and Houston
- **Great Facilities** – brand new building, beautiful campus
- **Faculty** – values good instruction, many with STEM degrees and experience
- **Administration** – willing to experiment, take a risk

GAME PLAN



- Eliminate programs with low participation.
- Focus on programs with high placement and quality.
- Create a specialty MBA in a niche area:

STEM MBA

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What is a STEM MBA?

WHAT IS A STEM MBA?



- **Participants:** Undergraduate degree in Science, Technology, Engineering or Mathematics (STEM)
- **Duration:** One Year
- **Style:** Cohort (starting Fall, Spring, or Summer)
- **Location:** Same Room throughout Program

WHAT IS A STEM MBA?



Program Characteristics

- **Format:** 42 Hour program
 - *36 hours on campus; completed within a year*
 - *6 hours distance; can be taken before, during, or after on campus program (many take while still in undergraduate program)*

- **Curriculum:**
 - *30 hours MBA Core*
 - *12 hours STEM oriented “electives”*

WHAT IS A STEM MBA?



How does content differ from other MBAs?

- Not just a change in audience.
- Core classes are similar to other programs, **BUT** examples and cases are STEM related.
 - *Not used: Wal-Mart, McDonalds, Banks*
 - *Used: Energy, Chemical, Manufacturing, Technology, Healthcare, Pharma*
 - *Business law emphasizes intellectual property*
- Non-Core courses focus on STEM topics
 - *Commercialization*
 - *STEM Theories in Practice*
 - *Technical Communications*

WHAT IS A STEM MBA?



STUDENT DEMOGRAPHICS

- 50% Engineers
- 40% Hard Sciences
- 5% Soft Sciences
- 5% Math

Unexpected participants:

- “Gap Year” medical students
- PhD/MS students in biotechnology

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Why a STEM MBA?

WHY A STEM MBA?



Our initial thoughts regarding a STEM emphasis:

- Innovative and unique
- National emphasis on STEM education
- Potential participants on Texas Tech campus
- Non-problematic job placement



WHY A STEM MBA?



Program philosophy

- You entered your undergraduate to become an engineer or scientist.
- We do not want to convince you to become accountants and bankers.
- Emphasis:

Bring your scientific and engineering ideas to the market place.

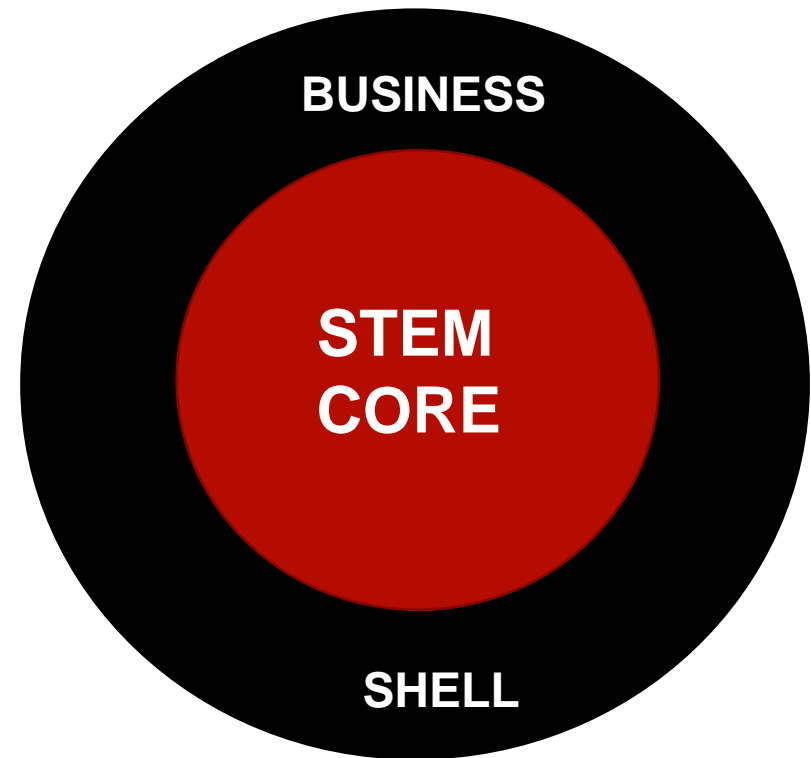
Learn management and leadership skills that will make you a better engineer and scientist.

WHY A STEM MBA?



Program philosophy

A STEM core and business shell will give you an edge in the workplace.



MBAs for Specialized Audiences

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Evaluating the Potential

(what we thought about before implementing a
STEM MBA)

EVALUATING THE POTENTIAL



Three factors we considered:

- **Market** – Can we fill chairs?
- **Resources** – Are we capable?
- **Benefits** – Is it worth it?

EVALUATING THE POTENTIAL



Market – Can we fill chairs?

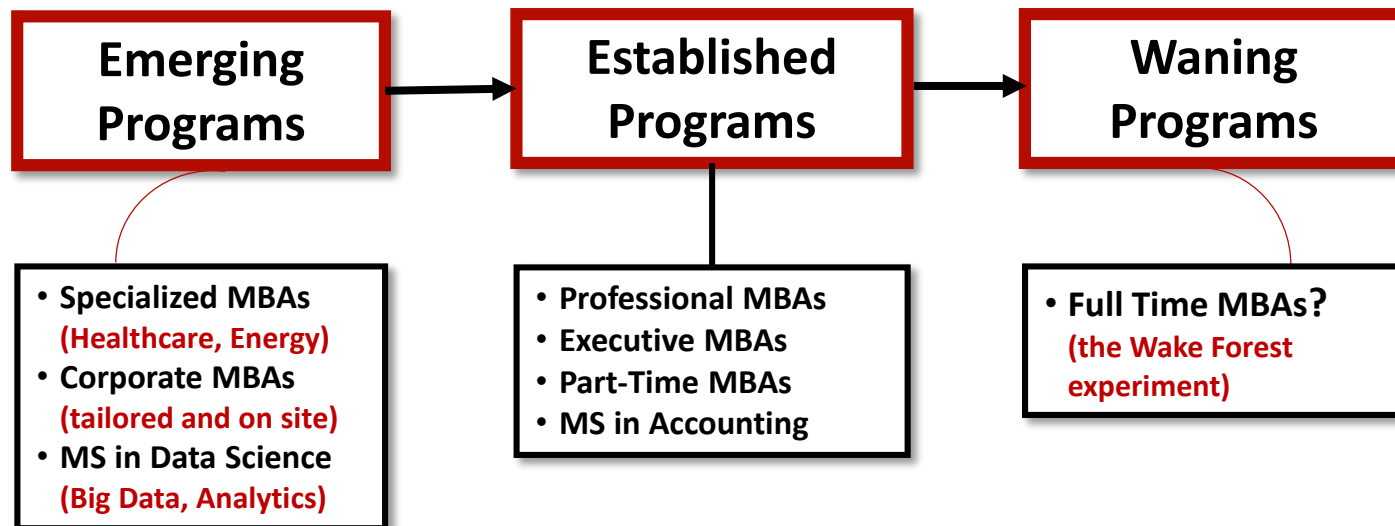
- ☑ What audience will find appealing?
- ☑ Who is offering similar programs?
- ☑ How will the program be promoted? (“If you build it, they will come” does not work.)
- ☑ Will existing programs be cannibalized?
- ☑ Is the market sustainable? (Will it exist ten years from now?)

**Alabama
Purdue**



EVALUATING THE POTENTIAL

Market – Program evolution (and trends)



EVALUATING THE POTENTIAL



Market – The marketing landscape has changed:

Old School

- Pamphlets
- Static Websites
- Mail Outs
- Grad Fairs

**Conclusion:
We need to adapt!**

EVALUATING THE POTENTIAL



Market – What made STEM students perfect for us?

- Texas Tech is known for engineering and science.
- Reputation as hard workers.
- Most have coop or internship experience.
- High level of cooperation between our college and Engineering / Arts and Science.

EVALUATING THE POTENTIAL



Resources – Are we capable?

- ☑ Is there faculty expertise?
- ☑ Is there classroom space available?
- ☑ Will our technology accommodate instructional and distance aspects of the program?
- ☑ Do faculty members have expertise to deliver distance aspects of the program?

EVALUATING THE POTENTIAL



Resources – Participating faculty typically:

- Have a STEM undergrad
- Worked in STEM profession
- Research using STEM related data

EVALUATING THE POTENTIAL



Benefits – Is it worth it?

- Does the program fit the mission of the college/university?
- Is there administrative support?
- Can graduates be placed in productive careers?
- Does the program bring recognition to the college (ranking? publicity?)
- Will the program generate formula funding?

RESULTS



The numbers:

| | Pre-STEM MBA | First Year STEM MBA | Second Year STEM MBA |
|---------------------------|-------------------------|--------------------------------|---------------------------------|
| Summer/Fall/Spring | 2013-14 | 2014-15 | 2015-16 |
| Enrollment | 40 | 64 | 90 |
| Average GMAT | 520 | 558 | 596 |
| Average Undergraduate GPA | 3.34 | 3.31 | 3.42 |

RESULTS



Beyond the numbers:

- Strong cohort comradery
- Market differentiation (but attempts to imitate)
- Ranking improvement
- Nice publicity



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