

**BSIS @ Pitt**

# Charting Your Professional Career Path

By

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# Assumptions

BSIS is a professional (non-academic) degree

You want to be a well-rounded professional

You want a career with a long-term future

You're up for a good challenge

# Reality

BSIS is 10 courses in 2 years

Can't learn everything you need to know

Can only choose a few electives

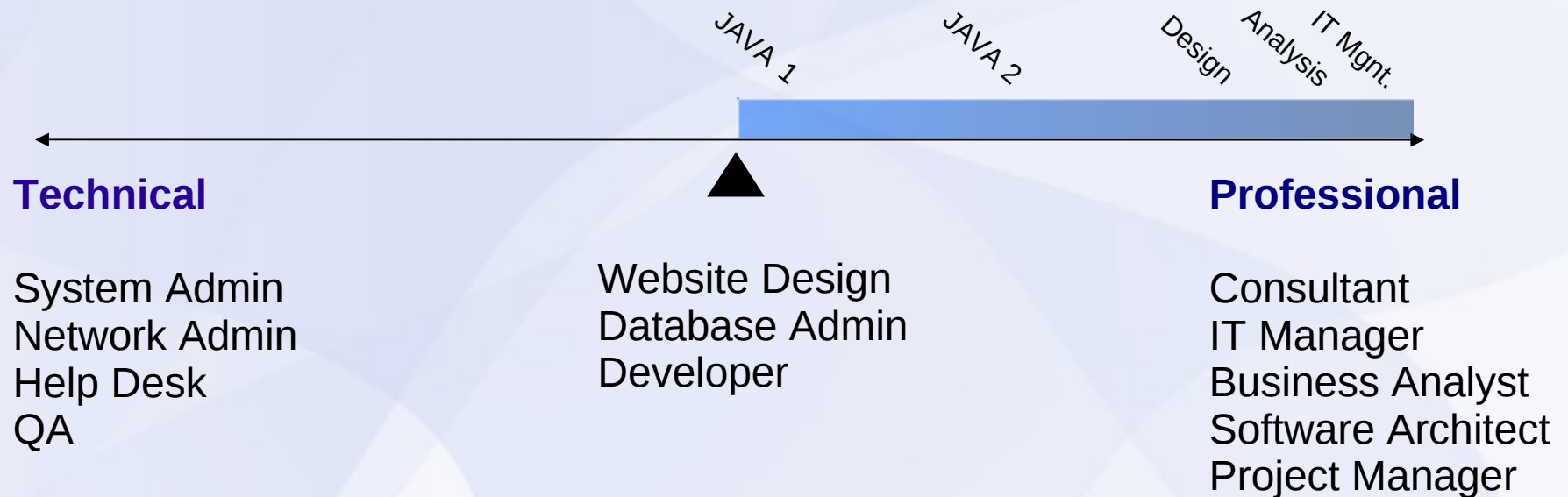
No time for mid-program corrections

Know what you want before you start!

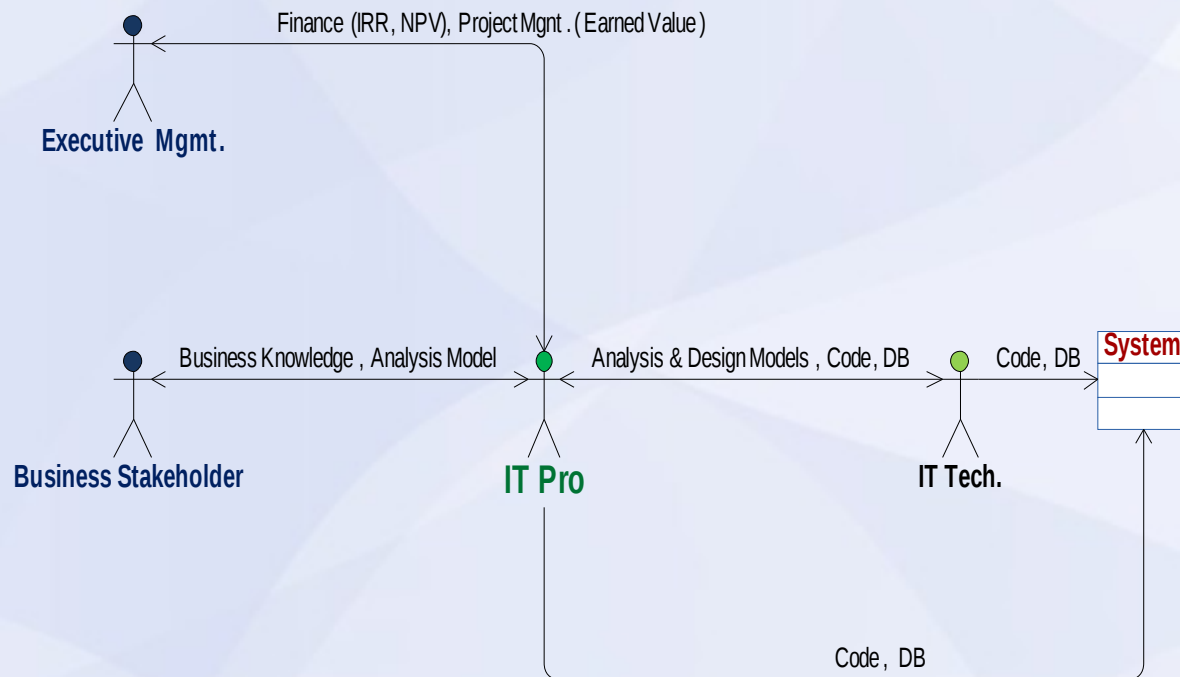
# IT Career Spectrum

Where do you want to go in the next 10-15 years?

What courses should you take?



# IT Pro Skillset



**Essential IT Pro Communication Styles**

# Why Be A Pro...?

## Challenge

Diverse skills required

## Security

Skills don't obsolesce because they're not based on IT fads

Skills too valuable to be outsourced or automated

## Potential

Skills needed by IT managers in all enterprises

# IT Pro Skillset

## Communication skills

Written & oral, technical & non-technical

Business Composition Course

Speech course

## Social Skills

# IT Pro Skillset

## Analytical Skills

Math & Problem-solving

Discrete Math

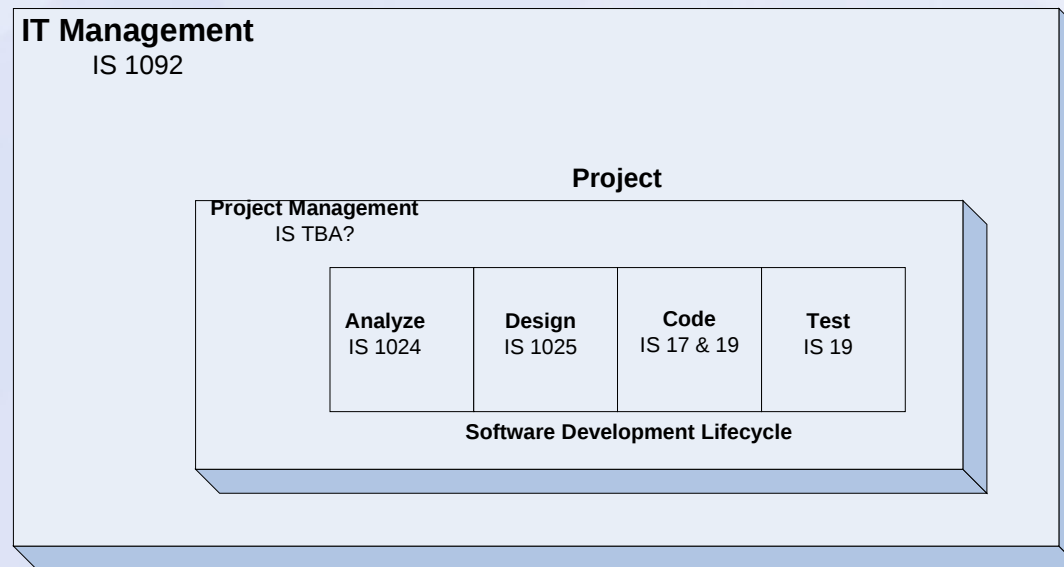
Java I & II

## IT Best Practices

How & when to use them

# Where Can I Work....?

## Enterprise IT Context Diagram



Anywhere professional IT skills are needed

Project management could be available if sufficient demand

# Where Do I Learn....?

The most critical skill for building a system?

Analysis (IS 1024)

How to write professional software?

Java II (IS 19)

How to model a system?

Design (IS 1025)

# Where Do I Learn....?

How to analyze, design and build a robust system?

Analysis, Design, Java II

Develop a professional portfolio?

All of the above & IT Management

# Where Do I Learn....?

The most important IT management practice?

How to write a 'knock em dead' resume?

How to find the company I really want to work for?

How to do an interview?

IT Management

# Where Do I Learn....?

To communicate with non-technical stakeholders?

Analysis, IT Management

To communicate with technical IT staff?

Java I & II, Analysis, Design

# How Do I Learn....?

## Active learning

You learn IT by doing, not listening

1 hr Lecture + 1.5 hr Lab

## Project based

Best practices are applied to realistic project

Work in 2-person teams

Instructor & TAs provide extensive mentoring

Work on project throughout entire semester

Final result is polished professional deliverable

# What's My Gameplan....?

You need a 2-year BSIS plan

4 plans are presented for 2 strategies:

Maximize professional potential, or

Strong professional foundation w/ web skills

2 scenarios for each strategy

IS 10 is taken prior to Junior year

IS 10 is not taken prior to Junior year

# What's My Gameplan....?

Start with required courses that meet key prerequisites for later courses

My Analysis course is recommended for professional track students

Take Human Factors (IS 1044) when convenient

Online version is recommended

Usually taught in summer!

# What's My Gameplan....?

Best courses for short-term career marketability

- Java 1 & 2
- User-centered Design & Web Programming
- Database

Best courses for successful professional career

- Systems Analysis & Systems Design
- IT Management

# What's My Gameplan....?

## Recommended related areas

- Business (dual degree is ideal!)
- CS (serious courses only!)
- Statistics / Math
- Natural sciences (esp. Biology)
- Economics
- Communications / English
- Linguistics / Foreign language (esp. Chinese)

# What's My Gameplan....?

**Plan 1:** You want to maximize your professional IT potential

Electives: IT Management, System Design, Java 2

Heaviest workload is Junior-Fall. Additional course load should be balanced accordingly

## Junior Year

### Fall

Java I (IS 17)  
Analysis (IS 1024)  
DB (IS 1022)

### Spring

Java II (IS 19)  
Design (IS 1025)

### Summer

Internship ? (IS 1085)

## Senior Year

### Fall

IT Mgmt. (IS 1092)  
Telecom (IS 1070)

### Spring

Human Factors (IS 1044)  
Internship ? (IS 1085)

### Summer

# What's My Gameplan....?

**Plan 2:** You want a strong professional foundation with web skills  
Electives: User-centered Design, Systems Design, IT Management  
Web Programming is capstone

## Junior Year

### Fall

Java I (IS 17)  
Analysis (IS 1024)  
DB (IS 1022)

### Spring

User-Centered Design (IS 1052)  
Design (IS 1025)

### Summer

## Senior Year

### Fall

IT Mgmt. (IS 1092)  
Web Programming (IS 1059)

### Spring

Human Factors (IS 1044)  
Telecom (IS 1070)

### Summer

# What's My Gameplan....?

**Plan 3:** You want to maximize your professional IT potential but haven't taken IS 10 prior to Junior year  
Electives: Same as Plan #1

## Junior Year

### Fall

Intro (IS 10)  
Java I (IS 17)

### Spring

DB (IS 1022)  
Telecom (IS 1070)  
Human Factors (IS 1044)

### Summer

Internship ? (IS 1085)

## Senior Year

### Fall

IT Mgnt. (IS 1092)  
Analysis (IS 1024)

### Spring

Java II (IS 19)  
Design (IS 1025)

### Summer

# What's My Gameplan....?

**Plan 4:** You want a strong professional foundation with web skills but haven't take IS 10 prior to Junior year  
Electives: Same as Plan #2  
Web Programming is capstone

## Junior Year

### Fall

Intro (IS 10)  
Java I (IS 17)

### Spring

User-Centered Design (IS 1052)  
DB (IS 1022)  
Human Factors (IS 1044)

### Summer

## Senior Year

### Fall

IT Mgnt. (IS 1092)  
Web Programming (IS 1059)  
Analysis (IS 1024)

### Spring

Telecom (IS 1070)  
Design (IS 1025)

### Summer

# Can I Hack It....?

Serious students always succeed!

60 - 75% succeed (A or B)

5 - 10% fail

# Who Can I Talk To....?

For professional IT career & curriculum advising

Dr. Glenn Ray

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[gray@sis.pitt.edu](mailto:gray@sis.pitt.edu)

For advice on related Pitt courses:

Mary Koller

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[mkoller@sis.pitt.edu](mailto:mkoller@sis.pitt.edu)

For advice on networking-security courses:

Dr. Krishnamurthy

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