ME 370: The Mechanical Engineering Profession

Lecture 01: Develop a Career Plan

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Purpose

Develop a career plan

Need for balance

Liebig model of plant health

- Several requirements: all must be present
- Any one component can be the limiting factor
- Imagine a rain barrel having staves of different lengths

Liebig's Law of the Minimum: plant growth is limited by the scarcest resource, not by the total of all resources. See, e.g. http://en.wikipedia.org/wiki/Law_of_the_Minimum

Sunlight	Warmth	Nitrogen	Phosporous	Potasium	Soil moisture

Need for balance

Liebig model of career health

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	skills			ssues	
Technical skills	Intellectual property skills	Communication skills	Business knowledge	Knowledge of contemporary issues	Ethics

Need for balance

Liebig model of career health

- Can you accurately describe your strengths and weaknesses?
- Which component is the limiting factor in your career?
- Are you working on your strengths?
- Can you manage your weaknesses?

Technical skills	Intellectual property skills	Communication skills	Business knowledge	Knowledge of contemporary issues	Ethics

SMART Objectives

The SMART criteria can be used to set goals

- Specific
- Measurable
- Achievable
- Realistic
- Time-bound

This week's readings have more background

Specific

Is the goal understandable to other people? Is it well-defined?

- Job title(s): real positions in real companies
- Technical specialization
- Management roles?

Short term goals need to be more specific than long term goals.

Measurable

What is your measure of success?

- Title? Salary? Location? Name of company?
- Would not achieving the goal be obvious?
 Work for some company in the northwest

versus

Work for Bioject in Tualatin, Oregon

Hold yourself accountable by setting a goal that would be obvious if you missed it.

Attainable

Can you get to the goal?

- Do you have the necessary attributes?
 - Work habits, training, grades
- Is this a competitive goal (e.g. becoming an astronaut)?
- Could others with your background achieve this goal?

Big goals can be attained, but will likely need achievable intermediate goals.

Realistic

Are your priorities aligned with the goal

- Have you demonstrated similar commitment in the past?
- Do other commitments compete for your time?

Are resources and time frame consistent with the goal?

Unrealistic goals guarantee failure. Set goals that teach you how to succeed.

Time-bound

Good goals have deadlines

Five-year career goal has built-in time limit

- Time limit will help determine realizability
- Set intermediate milestones

Ten and twenty year goals should also be developed

Use time to measure progress. Are you willing to keep yourself on track?

Are goals necessary?

No.

- Many engineers have successful careers without planning.
- Career plans will change.
- One's ability to predict the future is limited.

Are goals helpful?

No doubt.

- Setting goals can make you more conscious of choices.
- Setting goals can make you active, not passive.

Many people prefer to act willfully, and not accept what happens to fall their way.