

# Research Methods

The Academic Life

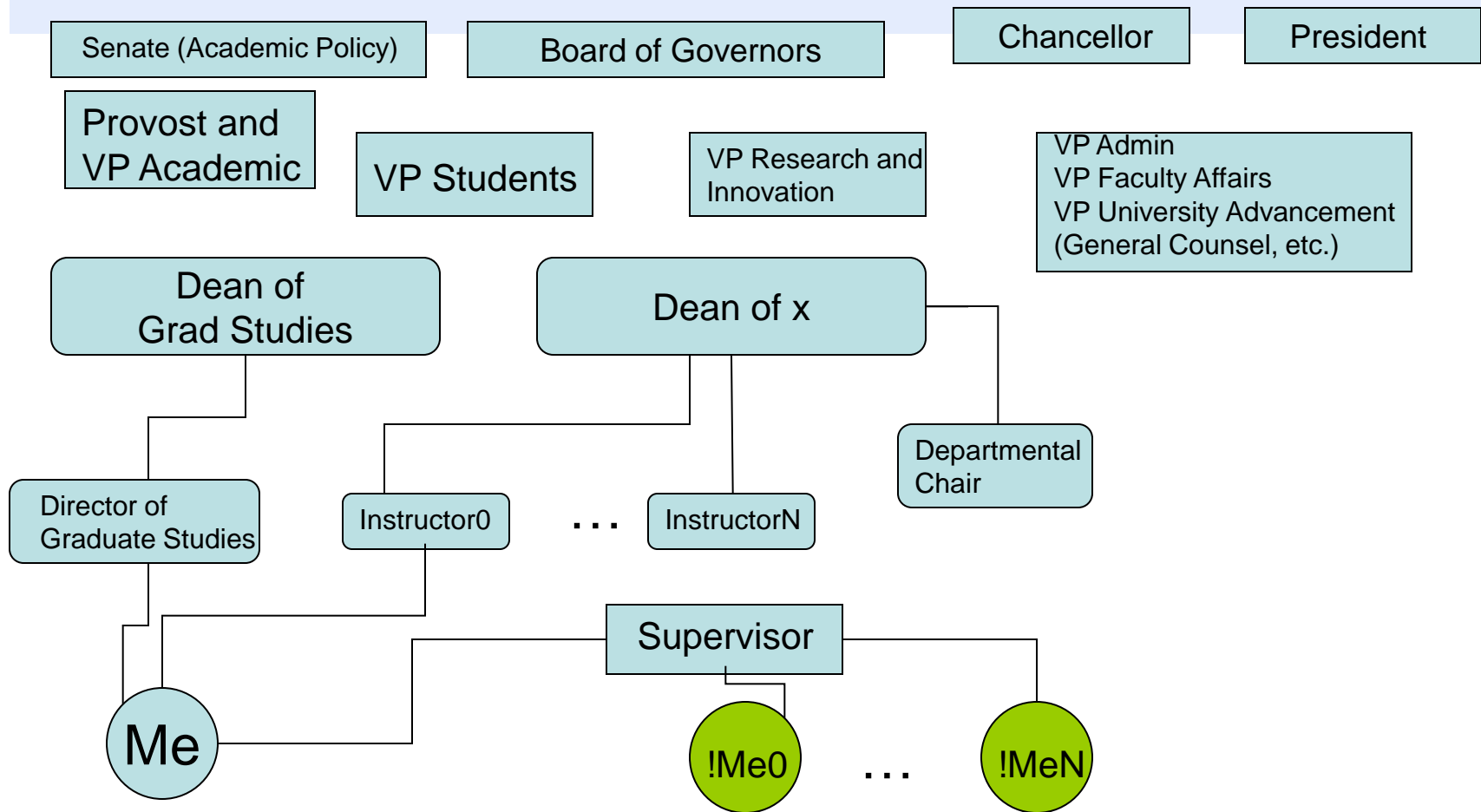
# Topics of Interest

- The straight facts
  - What does it take?
  - What do professors do?
  - What are they responsible for?
- The bent facts
  - What are professorial motivations?

# How do you know you might be a professor in waiting?

- You walk into a room and notice that a picture is hanging crooked. You...
  - (a) Straighten the Picture
  - (b) Ignore the Picture
  - (c) Write a grant proposal asking for funding to pay 2 grad students to spend the next 2 years designing a solar-powered, self-adjusting picture frame and planning a series of seminars and papers implying your belief that the inventor of the nail was a total moron.

# The Organization of a University

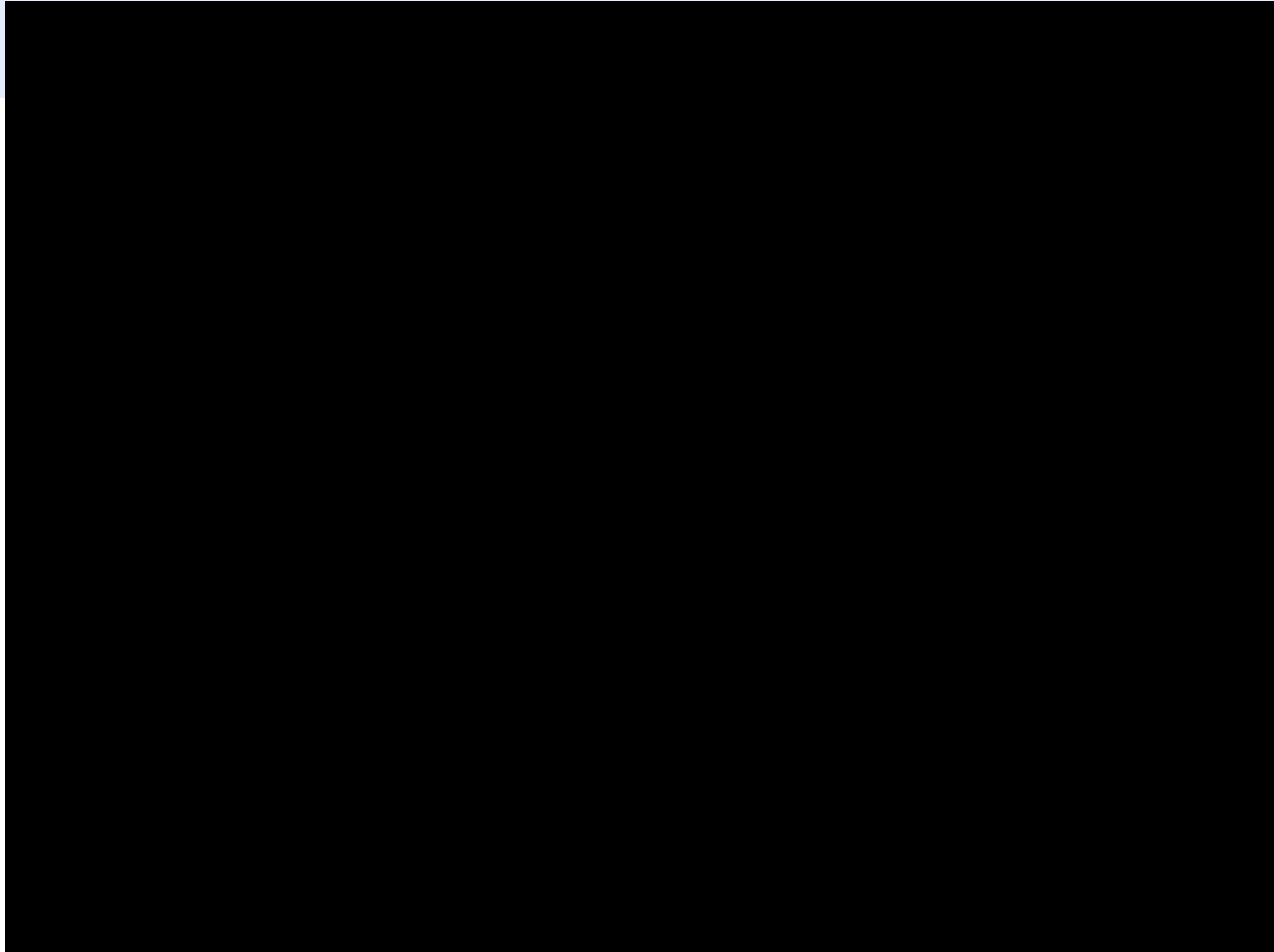


# The Typical Career Path

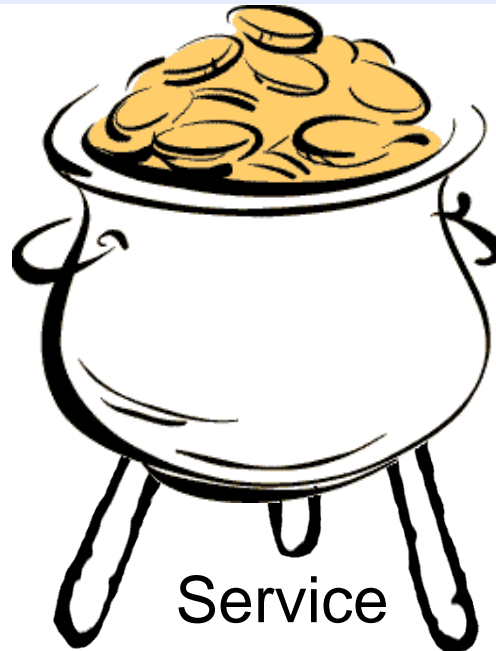
- Undergrad Education (4 years)
- Masters (2 years)
- Doctorate (4 years)
- Assistant Professor--Tenure Track (Probationary years)
- Associate Professor (Tenure!)
- Professor (forever)
- Administration (with a return spring)
- ~~Retirement~~/death



# What do Professors do?



# Responsibilities



**Scholarly Research  
and Creative  
Activities (SRC)**

Teaching

# Promotion

- Demonstration of
  - Teaching
  - SRC
  - Service



# FEAS Guidelines

## (these are not even real)

Academic Activity	Associate Professor	Full Professor
Review of Teaching Dossier  Faculty Course Survey (Question # 7 on the member's effectiveness or question #10 on the old form)	Dossier to confirm demonstrated commitment to, and quality in, teaching. Majority of students shall have rated the faculty member as effective (2.0 or better on the FCS) on no fewer than 2/3 of all surveys	Dossier to confirm demonstrated commitment to, and quality in, teaching. Majority of students shall have rated the faculty member as effective (2.0 or better on the FCS) on no fewer than 2/3 of all surveys
Total graduate students supervised (current and past M.A.Sc. and PhD)	4	15
Total graduate students completed (M.A.Sc. and PhD)	2	10, with preferably one or more PhD supervision
Peer-reviewed journal publications*	4 at Assistant rank	20
NSERC and other peer-reviewed grants (in appropriate disciplines)	At least NSERC Discovery Grant (DG)	NSERC (DG) and others
Impact of Research	National	National and International
University service	Participation and some leadership	Demonstrated leadership
Service to profession and industry	Expected	Required

# Meaningless Terms that will govern your life

- Excellence
- Research Impact
- Quality
- High-Quality
- Highest-Quality
- Thought Leader
- Prestigious
- Senior Professor



# The Low-Down on teaching

- Most professors want their students to learn
- Most professors agree that it is the most important part of their job
- Most professors have received 0 hours of instruction on how to teach
- A significant number of professors believe they are great teachers
- To receive a teaching award a professor must essentially nominate themselves.
- [www.ratemyprofessors.ca](http://www.ratemyprofessors.ca)

# The Low-Down on Research

- Research sometimes produces something useful
- Research often produces papers
- Papers are sometimes useful
- Academics extrapolate:
  - More papers == more useful == prestigious/excellent/(your meaningless term goes here)

# The Low-down on Service

- Generally avoided unless something happens
- Something:
  - Altruism kicks in
  - Promotion looms
  - Fed up
  - Necessity

# The Second and Last Assignment

- Part 1
  - Create an NSERC Industrial Collaboration Grant application as per the materials on the course assignment page:
    - Instructions
    - Form 200
    - NSERC Peer-review manual
- Part 2
  - Sit on a Grant Evaluation Committee and review grant proposals for possible funding.