Managing Your Career as a Geoscientist

From Many AAPG Geoscientists
Take Responsibility

It Is Your Career

It Is Your Responsibility
Your Career

Can Take Many Directions
You
Set the Direction
Geoscience Professional Development

Student → Entry Level
- Planned Training
- Formal Mentoring

Broadening Development Assignments
- Mentors others
- Mentored by Experts
- Mentors others

Succession Assignments

Independent
Manager
Consultant
Senior Interpreter
Specialist

Now is the Time to Start Planning Your Career
To Arrive at Your Destination

You Must Maintain Your Career
Your Responsibility

Maintain

Or Not

Your Career
Is a Geoscience Career The Right Career for You?
Successful Geoscientists

Love Geology
Creative Problem Solvers
Win-win attitude
Team player
Perseverance and flexibility

Realistic appraisal of career market
# Society Needs our Expertise

| Resource Assessment:       | Fossil fuels                  |
|                           | Stratigraphic minerals       |
| Environmental Quality:    | Water supplies               |
|                           | Waste management             |
| Catastrophe Management:   | Landslides, Floods,          |
|                           | Tidal Waves                  |
|                           | Bolide Impacts               |
| Climate Change:           | Documentation                |
|                           | Coastal management           |
THE GEOSCIENCE GRADUATE'S OPTIONS

Minerals    Oil & Gas    Environment, Engr, Other
Projected World Energy Demand

World Energy Demand

Billion Barrels of Oil Equivalent per Year (GBOE)

Crude Oil

Natural Gas

Coal

Solar, Wind Geothermal

Nuclear Electric

Hydroelectric

after Edwards, AAPG 8/97
Age Brackets for Geoscientists Worldwide (2008*)

Global Demand
Successful Geoscientists

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Win-win attitude
Team player
Perseverance and flexibility
Realistic appraisal of career market
Build
A Solid Foundation
Geoscience Foundation
Geoscience Careers

Strong basic-discipline training

Develop supplementary skills
Math and Statistics
Physics
Computer and Workstation

Excellent communication skills
Oral, written, graphical
English
Geologic Mapping and Sampling

- Gravity
- Magnetics
- Seismic Reflection
- Geologic Mapping

Armentrout 2000, from American Petroleum Institute, 1986
Stratigraphy and Depositional Systems

Understanding the processes creating sedimentary units

From Armentrout, 2000, AAPG.org
Understanding the process of deformation of the subsurface

Seismic Interpretation

Contouring

From Armentrout, 2000, AAPG.org
Exploration Geochemistry

Characterizing the type, history and origin of petroleum

From Armentrout, 2000, AAPG.org
Reservoir Characterization focuses on data integration to model reservoir architecture and flow properties.

Seismic visualization
Resistivity modeling
Outcrop studies
Geostatistics
Fracture characterization
Production data inversion
Reservoir Optimization

Volumetric and reserve estimation

Reservoir simulation

From Armentrout, 2000, AAPG.org
Geoscience Foundation

Geoscience Careers

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COMPUTER SKILLS

• PC skills Required
  – Word Processing
  – Spreadsheet
  – Power Point
  – ArcGIS

• Workstation
  – Try to get exposure
  – Interpretation most important

Heath, 2002
COMMUNICATION SKILLS

Must be able to Present Your Work

*In English*

Kaldi, 2004
Successful Geoscientists

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Realistic appraisal of career market
Professionalism

- Initiative
- Ethics and Integrity
- Enthusiasm
- Adaptability
- Cooperation
- Team Work

Essential Job Market Skills

Heath, 2002
Job Market Expectations

Corporate Recruiters Assume:

You have a Solid Geoscience Foundation

You have a strong background in Math/Computers

And That You Are

Self-motivated
Team Player
Excellent Communicator

Professional
Job Market Expectations

Corporate Managers Require

- Immediate Impact
- Bottom Line Focus
- High Productivity
- Continuous Training
- Creative Problem Solving Skills

Professionalism
Cost of Student Membership

$0.00
Student Membership

www.aapg.org
STUDENT CHAPTER ACTIVITIES

- Distinguished Lecturers from AAPG and Industry
- Short Courses and Seminars
- Field Trips
- Exhibits at Conferences
- Other Events: on Campus & off Campus

Univ Sriwijaya geophysical survey in Sumatra
21 Feb 2004
AAPG STUDENT BENEFITS

• Great Publications: Bulletin, Explorer

• Books, Books, Books
  – Publication Pipeline
  – Discounts on AAPG Books
  – $500 Book Gift (3 yr cycle)

• Grants-in-Aid for Grad Study

• Weeks Grants (SC and student)

www.aapg.org  Students@aapg.org
WEEKS GRANT

$500/yr for Chapter

$500/yr for Student

www.aapg.org
Students@aapg.org
Geoscience Professional Development

Entry Level
- Planned Training
- Formal Mentoring

Graduation
- Broadening Development Assignments
- Mentors others
- Succession Assignments
- Mentored by Experts
- Mentors others

Now is the Time to Start Building Your Career
You Only Have

A Solid Foundation
Career Strategies

• Set Goals –
  – Direction
  – Timing

• Prepare to Compete
  – Stay Versatile
  – Be Patient

• Network

• Keep Growing
  – Find, use a Mentor
  – Develop New Skills
AAPG Can Help You

Build and Manage Your Career
Cyclic Job Market
Typical of Today’s Global Industries

The Business Cycle

Time

Employment

Growth Retrench Crash
Cyclic Job Market
The Better Professional You Are

Employment

Growth Retrench Crash

Layed Off Nov 00 Re-Hired Dec 00


Time

The Better Your Career Potential
Join Professional Societies

Geological Society of Thailand
AAPG
SEAPEX

• Learn more about your career
• Increase your knowledge
• Exposure to leaders in science and industry
• Expand organizational, & management skills
• Network – interaction with peers
• Helps you throughout your career
Professional Societies
Don’t Just Join - Participate

• Attend Meetings

• Give Papers / Posters

• Seek Mentors
  – Serve on Committees
  – Volunteer
AAPG

Professional Standing & Recognition

- Code of ethics
- Recognized as a trained professional
- Professional certification available
- Networking opportunities
- Present your work at meetings & conventions
- Regional & international contacts & events
- Honors & Awards
Membership Value Pyramid

AAPG Professional Community
- Ethics/Outreach
- Advocacy/Networking
- Retirement GeoVest
- Health Care GeoCare
- Car Rental/Credit Union
- Special Publications/Digital Products
- Annual Meeting, International Conferences
- Division Activities/Certification
- Short Courses, Field Trips, Online Learning
- Grants In Aid
- Student Membership & Programs
- Distinguished Lectures/Visiting Geologists
- Mid-Career Training Centers
- Access to Foundation Library

Basic Programs
- AAPG Bulletin (Hard copy & Online)
- Bulletin Archives Online
- Search & Discovery e-journal
- AAPG Explorer (Hard copy & Online)

Personal Member Programs
- Professional Development
- And Outreach Programs

Professionalism

Included in Membership

Discounted and/or Supported

Mostly Subsidized

Included in Membership
It Is Your Career
Manage It Well
Good Luck