

Systems Analysis: The Role of Scientists, Engineers, and other Technical Fields in Policy Making

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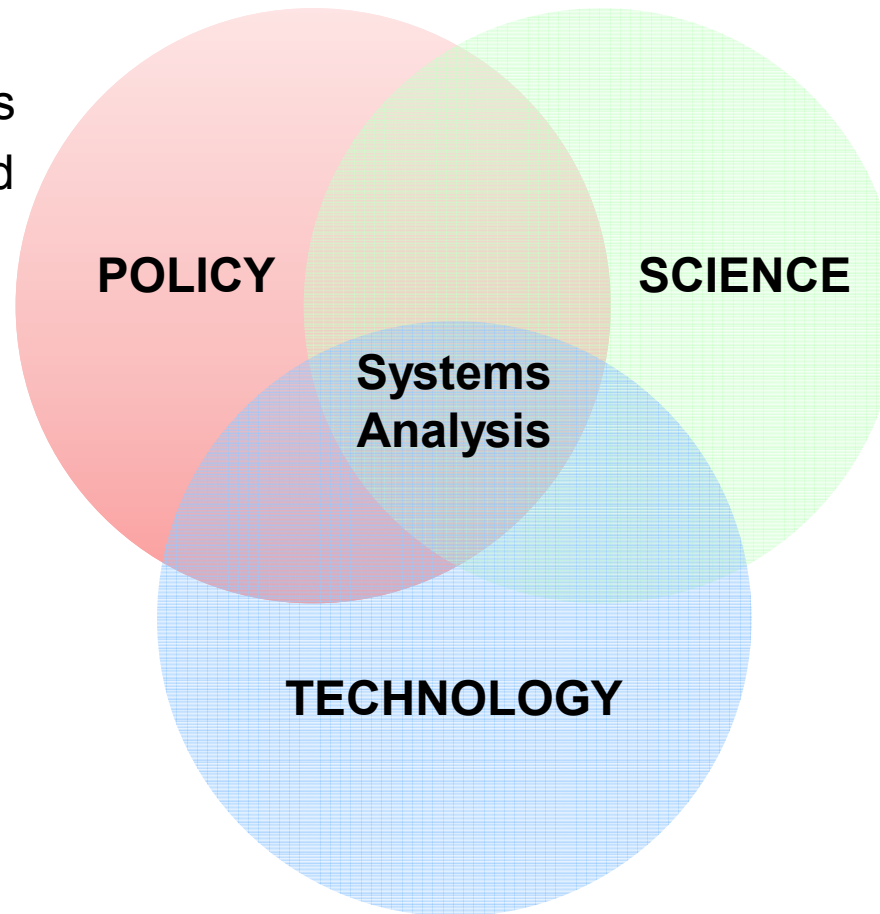


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Systems Analysis is an analytical approach for understanding complex problems, typically at the intersection of science, technology, and policy



- Complex, multi-dimensional problems
- Mushy, poorly defined
- Communication with non-technical people essential
- *Actionable* insights

- Sound scientific and engineering cornerstone for decisions
- Multi-disciplinary

- 'System' typically has technology component
- Need to understand all the salient elements, not just technology

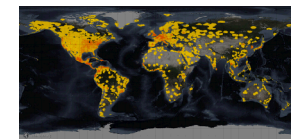
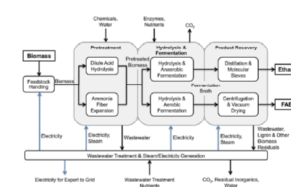
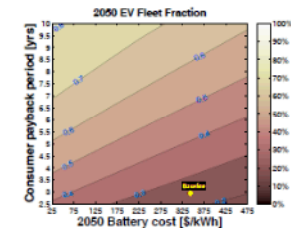
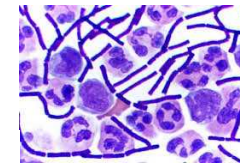
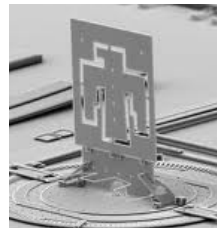
I became a systems analyst largely because I wanted to branch out to new areas and see the impact of my work

College/PhD: Learn more and more about less and less



B.S. Physics
Caltech

(a) A Feynman diagram showing a particle interaction. A central circle is connected to four external lines. The top line is labeled γ , the bottom line is labeled $\tilde{\chi}^0$, the left line is labeled $\tilde{\chi}^+$, and the right line is labeled $\tilde{\chi}^+$. The two side lines are also labeled W at their ends.
PhD Particle
Physics UT Austin



What makes a good analyst?

- Willingness to question assumptions and determination to change things for the better
- Desire for tangible impact
- Willingness and enthusiasm for taking on ill-formed questions
- Willingness to take on new challenges
- Ability and desire to come up to speed quickly in new areas and regularly climb learning curves
- Persistence and tenacity in pursuit of good ideas
- Thick skin
- Inquisitiveness
- Unique or individualized approach to solving problems
- Passion and interest
- Integrity and honesty, especially with stakeholders
- Initiative
- Strong technical background

What steps can students take to get into the field?

- Demonstrate diversity of interest
- Take classes outside of your field of study
- Find topics you are passionate about and pursue these
- Talk to us:

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