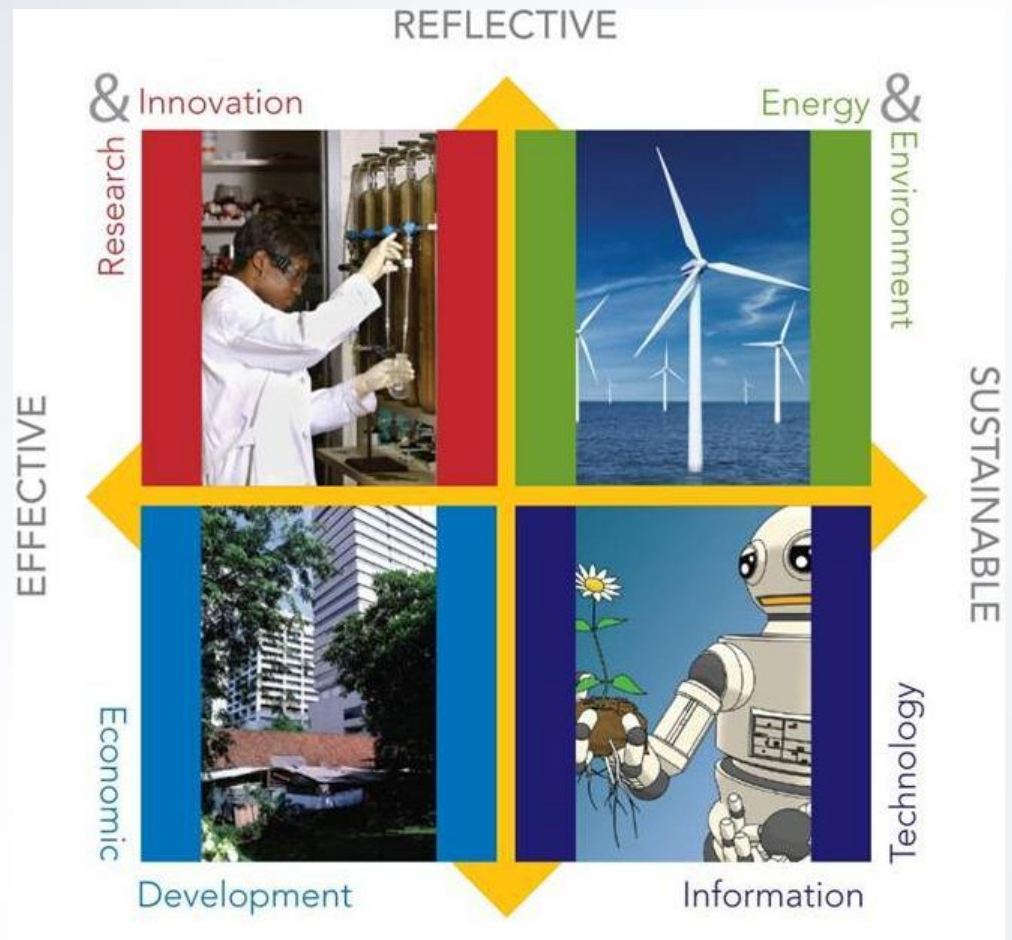**The School of Public Policy at the Georgia Institute of Technology**

Approaches to S&T policy differ

Country	Disciplinary orientation	Policy	Management	Economics	STS/Philosophy and history of science	Engineering systems and policy	S&T policy integrated with Environmental and Development policy
United States	SPP Georgia Tech	✔					
	GMU Fairfax VA	✔	✔	✔			
	GWU Wash. DC	✔		✔			
	MIT Boston	✔		✔		✔	
	CSPO Arizona State	✔			✔		
	CIRES U of Colorado Boulder	✔					✔
	RPI Troy STS				✔		
	Princeton STEP	✔					✔
	CMU Engineering & Public Pol	✔	✔	✔		✔	
	UIC Chicago	✔					
European Union	SPRU U of Sussex	✔					
	MERIT Maastricht	✔		✔			
	ECIS Eindhoven	✔		✔			
	TIK U of Oslo	✔			✔		
	U of Amsterdam	✔			✔		
	Aalborg	✔	✔	✔			
	Bocconi Milan	✔	✔	✔			
	Twente STS				✔		
✔	in bold is the focus of the program						

Insights

- Program focus tends to mirror the core competencies of faculty members in the department

- Some US programs like Princeton, Arizona (CSPO) and Colorado (CIRES) are highly idiosyncratic

- Many S&T programs integrate environmental policy related courses into their curriculum and highlight the Science & Technology policy aspects

- There are other US policy The Maxwell School at Syracuse offers a basic S&T policy course and one class in the Economics of Science & Technology

- Ohio State is starting up a program

Core innovation studies topics

Introduction to Science & Technology Studies	
	Historical perspective on Science, Technology, and Society
	Philosophy and Sociology of Science
	Social dynamics in S&T communities and production of knowledge
	Themes and Debates
Innovation Analysis	
	Basic Concepts
	Methods of Innovation analysis
	Applications of Innovation Analysis
Comparative Innovation Policy	
	Background topics
	Understanding and analyzing policy rationales
	Theoretical frameworks
	Comparative analysis of innovation policy
	University and Industry linkages
	Intermediaries in Innovation Policy
	Innovation and regional policies
	Innovation Policy and other objectives
	Innovation policy, regulation and dealing with controversy
	Foresight for Innovation Policy
	Evaluation of innovation policy

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Specialist topics

Civilian and Military applications of Space	Innovation for Sustainability
Competing in the Global Economy	Intellectual property rights and competition law
Complex Product Systems (COPS)	Management of Technological Risks
Economic Analysis of Industry Evolution	Managing Innovation
Economics of Technical change	Quality, Strategy and Value Creation
Energy systems and Economic Development	Regional Development and Transportation Policy
Entrepreneurship, Economics, and Public Policy	Science, Technology, and Society
Entrepreneurship, growth, and public policy	Sustainable Energy
Financial Systems, Investments and Technology	Technology and Development
Global Climate Change	Technology Cooperation: Incentives and policy for strategic alliances
Global Medicine and Local Health	Technology Negotiations and Dispute Resolution systems
ICT Policy	Technology Transfer
Industrial Ecology	US Space Policy

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The Structure of our degrees

Core classes	Elective areas
Policy Theory	S&T policy
Policy Analysis	Environmental & Energy Policy
Ethics in Policy	Economic Development
Research Methods	Information Technology Policy
Statistics	
Economics for Policy	

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Science & Technology Policy Courses

Undergraduate

- Critical Issues in Science and Technology
- Economic Development Policy and Planning
- Gender, Science, Technology, and Public Policy
- Information and Communications Technology Policy
- Information Policy and Management
- Internet and Public Policy
- Mass Communications Policy
- Philosophy of Science
- Philosophy of Technology
- Science, Technology and Public Policy
- Science, Technology and Regulation

Graduate

- Advanced S&T Policy (PhD capstone)
- Bibliometrics, Citation Analysis and Tech Mining
- Comparative S&T Policy
- Critical Perspectives on Science and Technology
- Geography of Innovation
- Information Policy and Management
- Innovation, the State and Industrial Development
- Internet and Public Policy
- Science, Technology and Public Policy (Intro)
- Science, Technology and Regulation
- Scientific Careers and Workplaces
- Technology, Regions, and Policy

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Environmental & Energy Policy Courses

Undergraduate

- Energy Policy
- Environmental Ethics
- Environmental Policy and Politics
- Introduction to Climate Policy
- Negotiating Sustainability
- Science, Technology, and Regulation
- Sustainability, Technology & Policy

Graduate

- Advanced Topics in Environmental Policy
- Ecological Economics
- Economics of Environmental Policy
- Energy Technology and Policy
- Environmental Finance
- Environmental Issues Seminar
- Environmental Law
- Environmental Values and Policy Goals
- Negotiating Sustainability
- Negotiation & Conflict Management
- Policy Tools for Managing the Environment
- Sustainability and Environmental Policy

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Economic Development Courses - graduate

- Community Development
- Economic Development Analysis and Practice
- Equity, Social Justice, and Economic Development
- Geographies of Innovation: Development, Regions, and Labor Markets
- Industrial Restructuring and Its Planning Implications
- Innovation and the State
- Local Economic Development Planning and Policy
- Methods of Regional and Urban Policy Analysis and Planning
- Modernization and Development
- Regions, Technology, and Policy
- Sustainable Urban Development
- Urban Development Policy
- Urban Transformations in the Global South

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Who we are

- 7 full professors – including chair
- 12 associate professors
- 7 assistant professors
- 1 visiting professor
- 3 academic professionals
- 5 staff

- 26 tenure track faculty
- Plus research faculty in CACP, Center for Advanced Communication Policy

Georgia Tech

Our degree programs

Degree	Enrollment	Where are our graduates employed?
BS	78	• Attorney at King and Spalding • Budget analyst for CDC • Asst. professor of mathematics at Haverford College • Development officer, Community Affordable Housing Equity Corporation • Clinical ethicist, University of Texas M. D. Anderson Cancer Center
MS	47	• Director of GA Aquarium • GA legislator • Assistant to governor Purdue
PhD	35	[next slide]
Joint PhD w/ GSU	26	

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PhD graduate employment

- **Government:**
  - Chief of Staff to the Director of Centers for Disease Control
  - Economist, Federal Bureau of Economic Analysis
  - Analyst, National Science Foundation
  - Postdoctoral scholar, National Center for Atmosphere Research

- **Faculty:**
  - University of Kansas
  - Arizona State University
  - Florida International University
  - Ohio State University
  - San Francisco State University
  - University of Missouri – Kansas City
  - University of Vermont
  - Kennesaw State University
- **Other:**
  - Analyst, Bank of America

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Student work

- – Developing an economic development plan for the Mayor, City Council, City Manager, lead economic development officials, and citizens of College Park GA

- – Working with Atlanta community groups and policymakers on local development issues, the BeltLine, local telecommunications, etc.

- – Our students intern with: Governor Sonny Perdue, Environment, Transportation, and Economic Development Office of Georgia, Planned Parenthood of Georgia, School Superintendent for the State of Georgia, Office of Policy Analysis and Research, GTRI.

- – Last year 14 undergraduate students were involved in our research and 39 GRA's were supported.

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Centers & Programs

- **Center for Advanced Communications Policy (CACP)**
  - A national, regional and state resource for timely advice on advanced and emerging communications and technology policy. CACP is a neutral authority, monitoring and assessing related legislative and regulatory issues, identifying future options through horizon scanning techniques, and promote a clearer understanding of the ever changing technology landscape.
- **Center for Nanotechnology and Society (CNS-ASU) @ Georgia Tech**
  - NSF sponsored, real-time technology assessment
  - links tightly with GT's growing leadership efforts in nano science and engineering
- **Technology Policy and Assessment Center (TPAC)**
- **Program in Science, Technology and Innovation Policy (STIP)**
  - Advances research and practice in science, technology, innovation, and spatial development policy.
- **Research Value Mapping Program (RVM)**
  - Advances the state-of-the-art in research evaluation

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Count of School's links with the rest of campus

College	School	Count
Architecture	Architecture	2
	Building Construction	2
	City & Regional Planning	8
	Industrial Design	1
	Music	0
Computing	Computational Science & Engineering	2
	Computer Science	4
	Interactive Computing	2
Engineering	Aerospace	0
	Biomedical	7
	Chemical and Biomolecular	5
	Civil & Environmental	6
	Electrical & Computer	12
	Industrial & Systems	7
	Institute for Bioengineering & BioScience	1
	Materials Science & Engineering	3
	Mechanical	7
Ivan Allen	Economics	3
	History, Technology, & Society	4
	International Affairs	8
	Literature, Communication, & Culture	3
	Modern Languages	2
Management		6
Sciences	Applied Physiology	2
	Biology	1
	Chemistry & Biochemistry	2
	Earth & Atmospheric Sciences	4
	Mathematics	1
	Physics	0
	Psychology	3
	Applied Research Institute (GTRI)	3
	Economic Development Institute (EII)	11

- Joint sponsored research
- Adjunct/Joint appointments
- Center associates, affiliates/advisory boards
- Collaborative degrees/programs
- Recent co-authors
- Cross-listed courses
- Students in pre-law minor
- Students in graduate certificate in public policy

As of fall 2010

Georgia Tech

International approach to policy

- **Research: Six research projects with international collaborators or conducted abroad**
  - Japan, Malaysia, various European countries, Peru, Argentina, Chile

- **We are the only U.S. university to have participated in the European network of excellence in innovation studies: the PRIME consortium**

  - A lively graduate student exchange program is underway with our European PRIME partners

- **We host a biennial international conference on S&T policy**

Research

SPP books
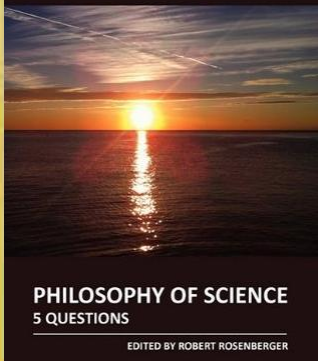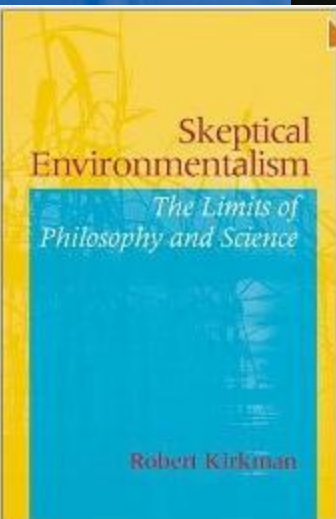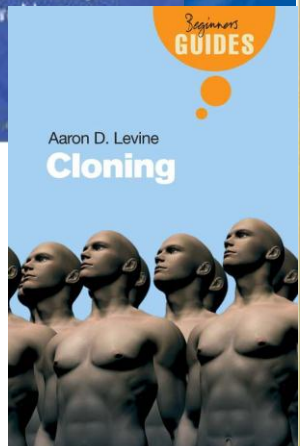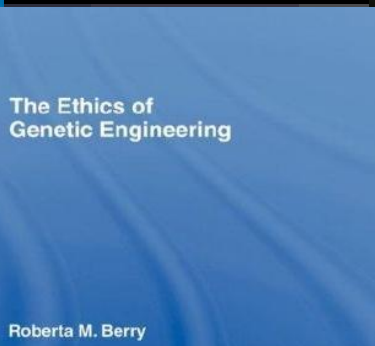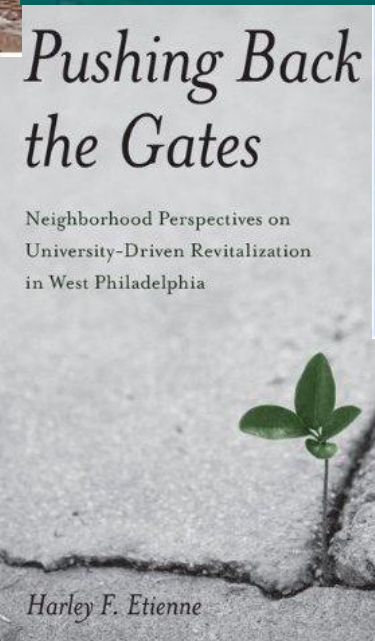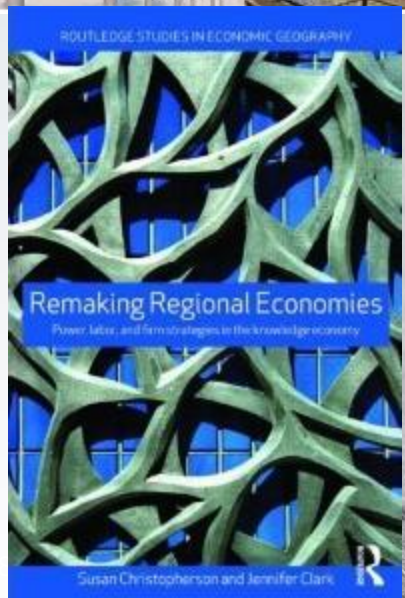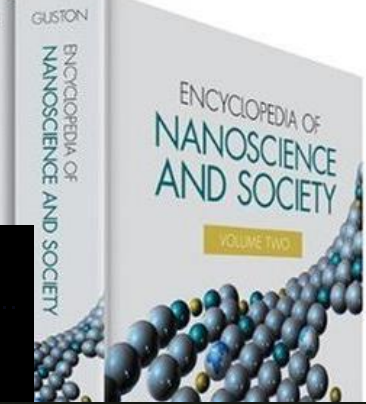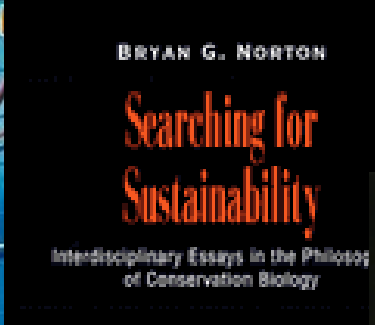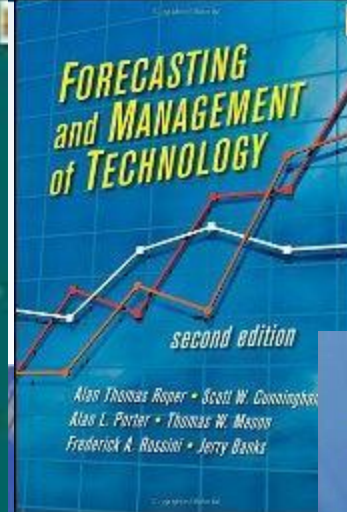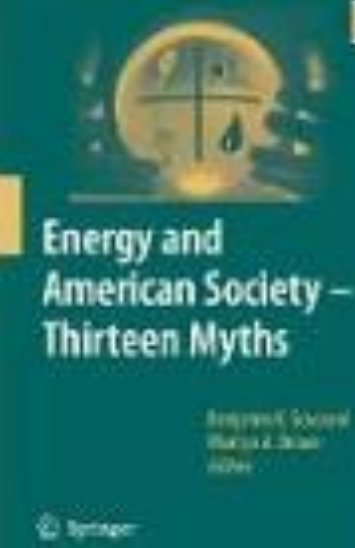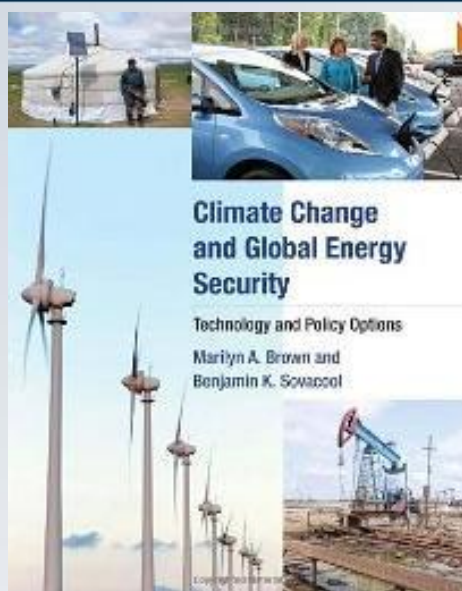
Active Research Projects

- **Faculty active on $6 million in sponsored research:**

  - Professional Networks as a Determinant of Advancement, Mobility, and Career Outcomes for Women and Minorities in STEM Fields
  - Bio-fuels as an example of international collaboration
  - Distributional Assessment of Emerging Technologies
  - Helping the Government of Malaysia understand its knowledge-based economy
  - Revealing Innovation Pathways
  - Measuring and Tracking Research Knowledge Integration
  - Developing a web-based learning tool - AGORA
  - The division of innovative labor
  - Commercialization of Academic Science in a Changing Policy Environment
  - How can knowledge about women in science and engineering effectively overcome costs of cognitive load, effort, and time to diffuse among potential users?
  - Ethically Contentious Research and Innovation: An Interdisciplinary and Inter-institutional Experiment in Ethics Education
  - Behaviorally Based Policies for Better Buildings

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Current research sponsors

- National Science Foundation
- National Institutes of Health
- Department of Energy through Oak Ridge National Laboratory
- Department of Commerce – NIST, Economic Development Administration
- Department of Education
- Air Force, Navy
- Kauffman Foundation
- Charles G. Koch Charitable Foundation
- State of Georgia, Environmental Facilities Authority
- Atlanta Beltline Inc.
- Hitotsubashi University
- Erawatch network Brussels, Belgium
- European techno-economic policy support network - Brussels, Belgium

Service

- **Working to accelerate the development and deployment of sustainable energy technologies by:**
  - Testifying before the House Energy and Commerce Committee on energy efficiency
  - For DOE, leading the development of a report describing the national strategy to deploy and commercialize greenhouse gas intensity reducing technologies (report was mandated by the Energy Policy Act of 2005).
  - Serving on the IPCC

- **Advising the NSF on human resource data for science statistics**

- **Helping scientific experts on committees of the National Academies communicate effectively by introducing them to state-of-the-art social and behavioral research in decision sciences and risk communication.**

- **Leading the "Knowledge Translation" task force for the National Institute for Disability and Rehabilitation Research (NIDRR) of the US Dept of Education that must recommend how to make knowledge created in research available for the benefit of people with disabilities**

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