Georgia Tech
Honors Program

www.honorsprogram.gatech.edu

Annual Report 2008-2009
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Georgia Tech Honors Program

Mission: The Georgia Tech Honors Program proceeds from one important challenge: to provide a compelling demonstration of what great and creative things can happen when talented students and committed faculty members work together in an environment of shared inquiry and engagement. To that end, the Honors Program seeks to

- recruit and retain undergraduate students who distinguish themselves by their passion for learning and the life of the mind, and who demonstrate a true commitment to embracing the intellectual, social, and cultural opportunities available at a major research university;
- create new curricular opportunities by developing courses that are incubators for educational innovation, giving both students and faculty members an opportunity to explore interdisciplinary approaches to fresh and significant questions that invite connections across the traditional curriculum;
- play a vital part in promoting a lively campus life, providing both a model and a resource that can help direct the intellectual and cultural future of the Institute.

Dr. Gregory Nobles, Director

Dr. Monica Halka, Associate Director

Ms. Nicole Leonard, Academic Advisor
Student Highlights

In the spring of 2009, the Georgia Tech Honors Program reached an important milestone: we celebrated the graduation of four members of the original class of Honors Program students who entered the program in its inaugural year, 2006, and who completed their Georgia Tech undergraduate degrees in three years:

Sarah Gilbreath (STAC) graduated with high honors and now plans to return to Georgia Tech to pursue a graduate degree in Georgia Tech’s School of Literature, Communication, and Culture (LCC).

R. J. Ibarria (ISyE) will continue his studies in the University of Florida's Industrial and Systems Engineering graduate program.

David Sotto (BME) graduated with high honors and is preparing for a PhD in Bioengineering by working in Dr. Gang Bao's lab on nanomedicine and biomolecular imaging at Georgia Tech.

Ian Usie (PHYS) will pursue graduate study in physics at the University of St. Andrews, Scotland, where he will hold the Bobby Jones Scholarship.

The 2008-09 academic year saw many examples of achievements by other Honors Program students, several of which are highlighted below:

SCHOLARSHIP

Jonathan Effgen, John Semmens, and Sydney Shaffer were awarded BP scholarships for study abroad.

Will Boyd presented his research at the 2008 Argonne Symposium for Undergraduates.

Ruchir Karmali conducted research in the field of diabetes. She submitted a paper based on this research to the Biomedical Engineering Society Annual Meeting and was selected to present a poster at the Fall 2008 meeting.

Sonia Golemme participated in the NSF-sponsored Research Experience for Undergraduates (REU) program at Notre Dame Summer 2009, conducting research with Dr. Deirdre Shoemaker (Numerical Relativity Group, Center for Relativistic Astrophysics).

Laura Armanios held a Caltech Fellowship on research in fluid mechanics, Summer 2009.

LEADERSHIP

Alina Staskevicius was elected incoming president of the Student Government Association.

Elle Creel was elected SGA Sophomore Representative.

Cullen Welch is chair of the SGA Academic Advising Committee.
**Emily Chambers** is Editor-in-Chief of *The Technique*.

**Vivian Fan, Jonathan Saethang, and Sijia Cai** hold editorial positions on *The Technique*.

**Maddie Stoddart** was chosen by the United States State Department to be intern for the US Embassy in Damascus, Syria.

**Christine Donegia** is president of GT’s Engineering Students without Borders.

**Amira Choueiki** is president of the GT AIESEC Executive Board.

**Drew Blackburn** is president of the IEEE student branch at Georgia Tech.

**Ashby Foltz** is vice president of the Interfraternity Council.

**Tim Cahill and Amy Varallo** are president and vice president, respectively, of the GT American Nuclear Society.

**Stephanie Lu** is secretary of the GT chapter of the American Institute of Architecture Students.

**Matthew Beaver** is a member of the College of Management Student Advisory Board.

**Alecia Jefferson** is a member of the Ivan Allen College Student Advisory Board.

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**ENTREPRENEURSHIP**

**Holden Link, Ian Guthridge, and Cory Johnson** created a puzzle-based rhythm action game called “Audiball” that was picked up by Xbox in January 2009.

**Will Boyd, Kento Masuyama, and Andrew Punnoose** were team winners of the 2009 Georgia Tech InVenture prize for their work on a chlorocyte bioreactor.

**Joy Buolamwini** was also a finalist in the 2009 InVenture competition.

**Trey Birch** developed the Youth Enrichment Project as a new campus organization.
**Annual Events**

**HONORS PROGRAM SPEAKERS**

The Honors Program seeks to broaden intellectual discourse on campus by bringing in speakers whose work has led them to stretch across disciplinary boundaries. The objective has been to offer our students the opportunity to get to know a speaker’s work beforehand, either within their special topic course or in a reading/discussion group, attend the public lecture, and then meet the speaker via a classroom visit or in a small question and answer session. Our students have expressed their appreciation for the speaker series and their desire to see it expanded to include philosophers, artists, and other scholars from disciplines that are underrepresented on campus.

**Fall Semester, 2008:**

**Daniel Armanios**, Rhodes Scholar, Oxford University, spoke to a group of Honors Program students on “Becoming a Rhodes Scholar.”

**Dr. Woody Holton**, Professor of History at the University of Richmond and author of *Unruly Americans* (2008), spoke to an Honors Program class on “Divide et Impera: Federalist 10 in a Wider Sphere.”

**Jonah Lehrer** (right), author of *Proust was a Neuroscientist* (2007) gave a public lecture on “The Future of Science is Art.”

**Spring Semester, 2009:**

**Joe Palca**, NPR science correspondent, presented “How to Explain the Universe in Two Minutes or Less,” in the annual Karlovitz Lecture Series, co-sponsored by the Honors Program and the College of Sciences. Palca’s talk provided an excellent follow-up to the 2008 Karlovitz event, which featured **Dr. Alan Lightman**, an MIT physicist and novelist, author of *Einstein’s Dreams* (1993), who gave a talk entitled “The Crossroads of Science and the Arts.”
FALL RETREAT

Initiated by three upper-level students from the Honors Program’s inaugural cohort, the weekend fall retreat for first-year students has become an annual event and continues to be student-organized and facilitated. The purpose—to foster communication and comradeship among new and returning students, faculty, and staff—is achieved through recreation, outdoor challenges, panel discussions, and creative expression. Second-year students do all the planning, organizing, cooking, cleaning, and oversight in general, while third- and fourth-year students join in with activities and conversation. To enhance relaxation, the retreat is held in the natural setting of Indian Springs State Park, just south of Atlanta.

SPRING EXPO

The Honors Program Expo is an annual student-organized event designed to showcase what our students are doing and the effects they are having on campus and around the world. Students demonstrate projects they are working on, whether for a class assignment or for their own personal interest; give oral presentations, often based on travels abroad; and display posters designed to convey a message of personal concern or interest.

In the spring 2009 Expo, presentations included a poster by Joseph Kim on his work with the Foundation for International Medical Relief of Children, an oral presentation by Martha Lesniewski on her trip to Vietnam and Taiwan as a member of Innovate 2009, and an interactive computer demonstration of a program to guide a robot, presented by Joy Buolamwini and Matt Jacobson. This end-of-year event serves as an opportunity for students to mingle with faculty and administrators from across campus and to reconnect with other students within the Program. Many prospective Honors Program students and their parents also attend, making this affair a valuable recruitment tool for Georgia Tech.
Continuing Development of the Honors Program

**STUDENT SELECTION:** In June, 2009, the Honors Program finished selection of the new class to enter in the fall of 2009, giving us for the first time a full complement of students covering all four years of the undergraduate experience. As we welcome the new first-year students and anticipate the graduation of more of our fourth-year students, we can now better appreciate the Honors Program as a comprehensive whole and develop plans for engaging our students throughout their time at Georgia Tech.

In choosing the class to enter in the fall of 2009, the Honors Program worked with Georgia Tech’s Office of Admissions to refine and streamline our selection procedures. When students are admitted to Georgia Tech, they now receive in their admissions packet an Honors Program brochure, which describes the program and directs them to the HP website for additional information. The brochure also instructs students who want to be evaluated for an invitation to the Honors Program to go to the HP website and indicate that desire. By thus developing a list of students who express an interest in the Honors Program, we can focus our evaluation efforts on students more likely to accept the invitation if it is offered and, we hope, decide to attend Georgia Tech and join the Honors Program in the fall. Working with this system, we evaluated over 1100 files and extended 278 invitations, which yielded an entering class of 120 Honors Program students for fall 2009.

While the selection process has changed somewhat, the underlying approach has not. The experience of the past three years has shown us that our selection procedures continue to produce a very promising profile of Honors Program students. (For a profile of the Honors Program students selected in previous years, see Appendix A.) Using admissions criteria that rely less on numerical measures (e.g. GPA and SAT scores) but instead seek evidence of passion and success in areas of extracurricular life, we have attracted students who come to Tech with energy and a spirit of inquiry and who, once on campus, achieve considerable academic success. The point is clear: intellectual engagement and academic success tend to go quite readily hand in hand, and that combination defines the essence of the Georgia Tech Honors Program.

**STUDENT CHALLENGE FUND:** One of the great successes of the Honors Program has been the Student Challenge Fund, which is designed to support creative student ideas that need an initial infusion of funding to get started. Funding amounts vary, but a typical grant from the Student Challenge Fund is in the range of $300-$500. These seemingly small amounts have served well as seed money, offering a useful leverage when students approach their departments or others for additional assistance. Quite simply, our experience has been that one “yes” leads to others, and with a small amount of support from several sources, students can do great things with limited resources.
The goal of the Student Challenge Fund is twofold:

- To serve as a vehicle of opportunity for students to explore areas beyond the curriculum. Our students have been awarded grants for a wide range of individual and group activities, from social programs to sustainability projects to international conferences. Several of the small grants have helped promote sustained student commitment and even new, stand-alone campus organizations that no longer require support from the Student Challenge Fund, which we take to be a true mark of success.

- To offer students practical experience in writing and revising grant proposals. As in the real world of grant-making, students are required to write formal proposals describing their ideas, present a clear budget – in which cost-sharing is required – and explain how the activity will be of benefit to the Honors Program and/or the larger community.

A small sample of proposals, selected to show the range and quality of Honors Program student self-initiated activities, are described below. (A list of all Student Challenge activities funded in 2008-09 appears in Appendix B.)

**Innovation:** Aspiring game developers Cory Johnson, Ian Guthridge, and Holden Link received funding to attend the world’s largest gathering of gaming industry professionals, the Game Developer’s Conference in San Francisco in February, 2008. As noted above, their game creation, Audiball, was launched during the first week of Microsoft’s Xbox Community Games in November of 2008.

**Community Development:** Audrey Plummer, Alexandria Evans, and Alice Shin worked with the English Avenue Neighborhood Association to design yard signs for residents and were granted Student Challenge funding to purchase and implement positive signage in this underserved Atlanta community.

**Service Learning Abroad:** Michael Chen spent the summer of 2009 working with the International Institute of Tropical Agriculture on agricultural research for development in Ibadan, Nigeria.

**SPECIAL TOPIC COURSES:** The Honors Program special topic courses represent the integrated and interdisciplinary learning aspect we hope to foster and nurture at Georgia Tech. These three-credit courses are intended to introduce a small group of intellectually active students to innovative and inquiry-based topics in an area of interdisciplinary investigation. The courses are taught individually or by a combination of instructors. While there is no set of specific requirements, the goal is to engage and challenge the students to explore questions rather than merely to expect answers from the instructor(s). To promote this spirit of active engagement and inquiry, the courses are geared to accommodate all majors and enrollment is limited to a maximum of twenty students.

Any Georgia Tech faculty member who is eager to become part of this lively environment is encouraged to investigate teaching possibilities in the program. Formal requests for proposals, however, usually go out early each semester to department chairs, who then
forward them to eligible faculty. The Honors Program curriculum committee selects several proposals to be developed as special topic courses. After the courses are selected, but before students register for the upcoming semester, the Honors Program hosts a “course rollout luncheon” in which prospective faculty present their courses to students. This event gives students the chance to meet and interact with the professors informally and also affords them the opportunity to ask questions about the courses before students enroll.

To date, the Honors Program has introduced more than 30 such courses (For a complete list of all courses, 2007-2009, see Appendix C). The following courses will be taught in the Fall 2009:

**BIO 4740  Biologically Inspired Design**
In this course, we teach biologically-inspired design as an innovative tool utilizing design strategies observed in natural systems as stimuli for novel inventions, to increase biological understanding through the use of quantitative analyses, and to provide a model for practicing interdisciplinary exchange between biology and engineering. We examine evolutionary adaptation as a source for engineering design inspiration, utilizing principles of scaling, adaptability, and robust multifunctionality that characterize biological systems. Students learn about a variety of biomimetic methods and ongoing research projects.

**CHEM 4803  The Art of Talking Science**
This course examines exciting scientific research programs ongoing in the College of Sciences through interviews, lab visits, and presentations. Students delve into modern scientific research, develop their skills in interviewing, and develop writing and presentation skills, all within a scientific format. Students explore communication methods that make complex scientific topics accessible to the general public. The end goal is to have an article for publication, for example, in the *Technique* or *SciTech*, or an article, podcast or video for inclusion on the College of Sciences web page.
COE 3002  Intro to Microelectronics & the Nanotechnology Revolution
This course exposes undergraduate students with little or no ECE background to a high-level understanding of the microelectronics and nanotechnology revolution and its global impact on both technology and society. Engineering, management, and science students comprise the class, and by its nature it is highly interdisciplinary in its appeal.

HTS 2803  Semester in the City: Engaging English Avenue
This mind-on/hands-on service-learning course invites students to explore how an urban neighborhood works – and equally important, to begin working in that neighborhood. We focus on the English Avenue community, just adjacent to the west side of Georgia Tech, a neighborhood facing serious challenges but also developing significant strategies for change. Looking at English Avenue from a variety of perspectives – historical, social, political, economic, and environmental, among others – we seek to understand the community on its own terms, but also study it within the larger context of the city of Atlanta.

INTA 4803  Latin American Identity and Politics
Who are you? What is your primary identity? Why? This seminar analyzes the formation of identity in Latin America. This course begins with the major theories of identity formation in Europe based on the myths of ancestral home, on the power of imagined communities through language and communication, and the power of war to shape identity. We then identify the multiple domains in Latin America that are not explained very convincingly by those theories and will explore alternative explanations of sports (largely soccer in the Southern Cone), music, and other cultural markers. Much of the course focuses on soccer as the potent force that both creates and divides national identity.

LCC 3823  Thoreau's House
In this course we will build a full-scale version of Thoreau's hut (using the materials, tools and practices he could or would have used) to develop a critical, technical, and historical understanding of the task Thoreau set himself—to build by hand his own home. We also explore 19th century discourse surrounding country architecture, gardening, etc. in relation to the construction of a “rural retreat”; the use of the tools necessary for such a practice; the relationship between tools, hands, and mind as articulated by Thoreau; a range of historical texts on handicraft; the work on hands and knowledge production currently being carried out by scholars working in cognitive science and related fields; and the role Thoreau plays in current articulations of sustainable living and minor architecture.

PHY 2803  Optical Illusions: A Study of Light and Perception
The world we think we see is not the world that exists. For example, the human eye perceives only a tiny range of wavelengths in the electromagnetic spectrum. Color is not the same to everyone. And our brains interpret what we see in strange ways. This interdisciplinary course blends current events, guest speakers, lively discussion, and a diverse array of literature and demonstrations to elucidate the curious nature of light and our interaction with it.
PHYSICAL SPACE: To enhance student success, the Honors Program has created a supportive physical environment both in the first-year residence, Field Hall, and in the main office in the A. French Building. Last summer’s move from Howell Hall to Field Hall created positive opportunities in two areas: First, the physical arrangement of the residence, with four floors of a roughly equal number of beds, enabled the Honors Program to achieve a near balance in terms of gender (56 men and 54 women). Second, the availability of unused space on the main floor enabled us to open a satellite office in the residence, where the Academic Advisor can hold regular hours and meet with students in their own dorm.

The Honors Program office also moved to new quarters in the A. French Building in the summer of 2008, acquiring a suite of four staff offices and a larger, more comfortable common space for students. In July, 2009, we anticipate opening a Student Resource Room in an adjacent space in the French Building, offering a more spacious environment for meetings, group work, access to print and electronic information sources, and basic relaxation between classes. On the whole, whether in the dorm or in the office, the Honors Program seeks to create congenial spaces where students not only feel welcome, but help define a physical environment that reflects their interests and supports their activities.
**Next Steps**

**STRATEGIC PLAN:** Beginning in 2009, Georgia Tech will develop a new, Institute-wide strategic plan, and the Honors Program has already laid the groundwork for undertaking its own strategic planning process. Our hope is to focus on defining our own programmatic direction, but to do so in a way that complements and contributes to that of Georgia Tech’s more comprehensive plan.

One necessary step in planning for the future is taking clear account of the present and past. To that end, the Honors Program has been committed to engaging in honest self-study. First, we have worked with Georgia Tech’s Office of Assessment to obtain useful data on our students through the CIRP survey and, more recently, the National Survey of Student Engagement (NSSE). Second, and perhaps more important, the Honors Program has always sought and accepted feedback from our students and faculty. Most recently, in April, 2009, we invited a small but diverse group of Honors Program students to join the HP staff at Sweetwater Creek State Park for a day-long, off-site feedback meeting, which was facilitated by Dr. Donna Llewellyn, director of Georgia Tech’s Center for the Enhancement of Teaching and Learning (CETL). Talking frankly and at length with Dr. Llewellyn, with no HP staff members present, the students offered wide-ranging and penetrating observations, expressing considerable satisfaction and a desire for continuity in many aspects of the program, but also challenging both staff and students to work for significant and achievable changes, some of which are now in the process of being implemented. To supplement the student-faculty feedback, we plan to establish an Honors Program Parents’ Advisory Council in 2009-2010 to incorporate the parents’ perspective and, we hope, to promote a sustained parent-student relationship with the program.

In general, the Honors Program must be honest and confident enough to confront essential questions: In severely straitened economic times, with universities everywhere facing revenue declines and budget cuts, can the Georgia Tech Honors Program justify itself as something more than an institutional luxury? Can it, in fact, demonstrate that it truly adds value, both to its own students and to Georgia Tech as a whole? Given the brief institutional existence of the Honors Program, it may be too early to answer those questions fully, at least until our graduates have gone far enough in life to give us longer-term feedback on the meaningful effects of the Honors Program. It’s never too early to ask such questions, though, and the Honors Program has both recognized the need and embraced the opportunity to do so. The strategic planning process will be only the first step in finding the kinds of answers that will help to program develop and further define its role at Georgia Tech.

**CAPITAL CAMPAIGN:** Just as Georgia Tech is entering a strategic planning process, so is it now in the midst of an ambitious capital campaign, and again, the Honors Program has a part to play. In 2009, working with Georgia Tech’s Office of Development, the Honors Program produced a case statement for the capital campaign, laying out several attractive opportunities for donor support. (See Appendix D.)
Appendices

Appendix A: Honors Program Student Profile

By almost any measure, the students in the Georgia Tech Honors Program represent an impressive group of undergraduates.

As the following table of GPA results indicates, the students in the Honors Program excel in the classroom, with 75 percent achieving an overall GPA of 3.00 or higher (compared to 53 percent of all GT students):

<table>
<thead>
<tr>
<th>Class of</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HP</td>
<td>GT</td>
<td>HP</td>
</tr>
<tr>
<td></td>
<td>3.48</td>
<td>3.01</td>
<td>3.34</td>
</tr>
</tbody>
</table>

HP GPA Distribution

<table>
<thead>
<tr>
<th>GPA Range</th>
<th>HP</th>
<th>GT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>3.50-3.99</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>3.00-3.49</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Below 3.00</td>
<td>19</td>
<td>27</td>
</tr>
</tbody>
</table>

HP Academic Recognition

<table>
<thead>
<tr>
<th>Recognition Type</th>
<th>HP</th>
<th>GT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean’s List</td>
<td>41</td>
<td>51</td>
</tr>
<tr>
<td>Faculty Honors</td>
<td>20</td>
<td>17</td>
</tr>
</tbody>
</table>

Honors Program students tend to have that “something extra,” a spirit of engagement that enriches their approach to education. Every year the Georgia Tech Office of Assessment conducts a survey of entering students, the Cooperative Institutional Research Program (CIRP), a nationally-administered instrument that provides comparable data over time and across institutions. In the fall of 2007, a significant enough number of Honors Program students (97) took part in the CIRP survey to allow us to discern some of the differences between them and the other entering Georgia Tech students who took the survey (1109). Some of the more significant and revealing CIRP results can be clustered into the following categories (where the numbers represent percentage of students responding “frequently” or “very important”):

<table>
<thead>
<tr>
<th>Intellectual curiosity:</th>
<th>HP</th>
<th>GT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked questions in class</td>
<td>76.0</td>
<td>53.4</td>
</tr>
<tr>
<td>Evaluated the quality or reliability of information received</td>
<td>64.2</td>
<td>45.0</td>
</tr>
<tr>
<td>Sought alternative solutions to a problem</td>
<td>57.3</td>
<td>44.7</td>
</tr>
<tr>
<td>Explored topics on own, even though not required for class</td>
<td>53.1</td>
<td>37.1</td>
</tr>
<tr>
<td>Looked up scientific research articles and resources</td>
<td>41.7</td>
<td>28.4</td>
</tr>
<tr>
<td>Think it important to take courses outside of major</td>
<td>80.3</td>
<td>67.5</td>
</tr>
<tr>
<td>Plan to pursue prestigious scholarship (Rhodes, Marshall, etc.)</td>
<td>69.0</td>
<td>47.5</td>
</tr>
</tbody>
</table>
Interaction with faculty and other students:

Socialized with someone of another racial/ethnic group (before GT)  90.4  76.1
Expect to socialize with someone of another racial/ethnic group (at GT)  100.0  95.1
Expect to have roommate of different racial/ethnic group  93.6  81.4
Asked a teacher for advice after class (before GT)  40.4  24.6
Expect to communicate regularly with professors (at GT)  96.8  81.7
Expect to participate in some form of mentored undergraduate research  83.3  66.0

Involvement in cultural activities and societal concerns (past year):

Played a musical instrument  51.6  31.8
Discussed religion  46.8  35.6
Discussed politics  45.7  33.7
Performed volunteer work  42.6  31.5

Importance of:

Developing a meaningful philosophy of life  68.1  50.6
Improving my understanding of other countries and cultures  73.1  53.2
Influencing social values  47.4  30.9
Becoming a community leader  43.6  34.1
Becoming involved in programs to clean up the environment  42.6  28.5
Participating in a community action program  40.4  28.6
Helping to promote racial understanding  41.5  33.4

Anticipated participation in campus activities:

Student clubs/groups  95.7  89.6
Study abroad program  90.0  65.3
International Plan  63.0  45.7
Volunteer or community service work  82.1  73.7
Student government  55.8  37.0
Social fraternity or sorority  39.0  42.5
Appendix B: Honors Program Student Challenge Fund Projects (2007-2009)

Student Projects and Events:
- Trailblazers – An alternative spring break where students perform service in the form of trail maintenance. Now an official Georgia Tech student organization.
- Bicycle Initiative – Six bicycles were purchased as alternative form of transportation for Honors Program students.
- English Avenue Community signage – Students assisted the English Avenue Neighborhood Association and the City of Atlanta's Weed and Seed Program in the campaign for positive signage.
- Video Game development – Students sold their fully-developed game of musical creativity to X-Box.
- Human Trafficking Awareness campaign – Student-hosted event to raise awareness.

Student Research:
- Underwater Robotics – Collaborative student research on autonomous underwater vehicle. Students entered vehicle in competition hosted by U.S. Naval Research Lab.
- Thermoacoustic Generator – Collaborative student research on thermoacoustic power.
- Fungalgae Group – Investigation of algae growth with CO₂-enhancement by fungi.

National conference presentations/attendance:
- Conference for Undergraduate Women in Physics at Yale
- Broadway Sound Master Conference (2 students)
- Game Developers Conference (3 students)
- 19th Annual Argonne Symposium for Undergraduates
- Biomedical Engineering Society Annual Fall Meeting
- United Students Against Sweatshops Conference (3 students)
- PowerShift 2009, Washington, DC
- Radical Urban Sustainability Training
- LeaderShape Institute (3 students)
- Sustainable Atlanta Roundtable
- International Scholar Laureate Program
- NextGen Conference

International Experience:
- Middle East/North Africa Leadership Development Seminar (2 students)
- INNOVATE Asia program (2 students)
- Foundation for International Medical Relief of Children, Peru project
- International Institute of Tropical Agriculture, Ibadan, Nigeria.
- International Service Learning – clinical care for underprivileged residents, Dominican Republic
- AIESEC internship in India
- Study Abroad: European Union Program
- Study Abroad: German LBAT Program (1 student), Spanish LBAT Program (3 students)
- Study Abroad: GT Lorraine (4 students)
# Appendix C: Honors Program Special Topic Courses (2007-2009)

## Spring 2007

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 4822</td>
<td>Race, Space, and Architecture</td>
<td>Benjamin Flowers</td>
</tr>
<tr>
<td>BME 2699</td>
<td>Biomedical Research Lab Rotations</td>
<td>Paul Benkeser</td>
</tr>
<tr>
<td>CHEM 2803</td>
<td>Origins of Life</td>
<td>Nicholas Hud</td>
</tr>
<tr>
<td>EAS 2803</td>
<td>Energy, Environment &amp; Society</td>
<td>Kim Cobb/Monica Halka</td>
</tr>
<tr>
<td>ECE 2803</td>
<td>Technology and Disasters</td>
<td>Joseph Hughes</td>
</tr>
<tr>
<td>ISYE 4833</td>
<td>Duality: An Interdisciplinary Exploration</td>
<td>Craig Tovey</td>
</tr>
<tr>
<td>LCC 3206</td>
<td>Games and Cognition</td>
<td>Ute Fischer</td>
</tr>
</tbody>
</table>

## Fall 2007

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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</thead>
<tbody>
<tr>
<td>INTA 4803</td>
<td>The Political Economy of Soccer</td>
<td>Kirk Bowman</td>
</tr>
<tr>
<td>HTS 2823</td>
<td>The Challenges of Outer Space</td>
<td>John Krige</td>
</tr>
<tr>
<td>AE 2803</td>
<td>Wind Engineering</td>
<td>Lakshmi Sankar</td>
</tr>
<tr>
<td>PST 3127</td>
<td>The Contemporary Enlightenment</td>
<td>Hans Klein</td>
</tr>
<tr>
<td>ECON 4803</td>
<td>Globalization from the Inside Out</td>
<td>Christine Ries</td>
</tr>
<tr>
<td>ISYE 4833</td>
<td>Engineering for Sustainability</td>
<td>T. Govindaraj</td>
</tr>
</tbody>
</table>

## Spring 2008

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tr>
<td>MGT 4803</td>
<td>Social Entrepreneurship</td>
<td>Terry Blum/Robert Thomas</td>
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<tr>
<td>HTS 3803</td>
<td>Semester in the City</td>
<td>Greg Nobles/Andrea Ashmore</td>
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<tr>
<td>EAS 2803</td>
<td>Energy, Environment &amp; Society</td>
<td>Kim Cobb/Monica Halka</td>
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<td>MUSI 3450</td>
<td>Analysis, Synthesis &amp; Perception of Music</td>
<td>Parag Chordia</td>
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<td>ECON 4813</td>
<td>Economics of Sustainability</td>
<td>Usha Nair</td>
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<tr>
<td>PSYC 2803</td>
<td>Psychology of Creativity &amp; Arts</td>
<td>Paul Verhaegen</td>
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<tr>
<td>PUBP 4803</td>
<td>Global Communications</td>
<td>David White</td>
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<tr>
<td>CHEM 2803</td>
<td>Origins of Life</td>
<td>Nick Hud</td>
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<td>COA 2803</td>
<td>Art &amp; Architecture in the Muslim World</td>
<td>Sabir Khan</td>
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<tr>
<td>ECE 2803</td>
<td>Failures, Disasters &amp; Technology</td>
<td>Joe Hughes</td>
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## Fall 2008

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>INTA 4803</td>
<td>Dissecting the Rise of China</td>
<td>Fei-Ling Wang</td>
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<tr>
<td>HTS 4813</td>
<td>Selective Scholarships Seminar</td>
<td>Paul Hurst/Greg Nobles</td>
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<tr>
<td>ISYE 4803</td>
<td>Mathematical Modeling of Elections</td>
<td>Joel Sokol</td>
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<tr>
<td>HTS 4843</td>
<td>The Pursuit of Happiness</td>
<td>Doug Flamming</td>
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<tr>
<td>LCC 3833</td>
<td>Disability Studies</td>
<td>Hugh Crawford</td>
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<tr>
<td>COE 3002</td>
<td>Intro to Microelectronics and Nanotech</td>
<td>John Cressler</td>
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<td>MATH 4803</td>
<td>Combinatorial Game Theory</td>
<td>Tom Morley</td>
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<td>ISYE 4833</td>
<td>Duality: An Interdisciplinary Exploration</td>
<td>Craig Tovey</td>
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<td>PHYS 2030</td>
<td>The Physics of Music</td>
<td>Galina Grom</td>
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### Spring 2009

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<tr>
<td>PST 3127</td>
<td>Science, Technology, and Human Values</td>
<td>Hans Klein</td>
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<tr>
<td>MGT 4803</td>
<td>Social Entrepreneurship</td>
<td>Terry Blum/Robert Thomas</td>
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<td>EAS 2420</td>
<td>Environmental Measures of Urban Change</td>
<td>Michael Chang</td>
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<td>ECE 2813</td>
<td>Innovation in Science &amp; Engineering</td>
<td>Ian Ferguson</td>
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<tr>
<td>CS 3803</td>
<td>Mobile Robotics: From Sensing to Action</td>
<td>Jim Rehg/Henrik Christensen</td>
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<tr>
<td>PSY 2803</td>
<td>Psychology of Creativity and the Arts</td>
<td>Paul Verhaeghen</td>
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<tr>
<td>ARCH 4822</td>
<td>Race, Space, and Architecture</td>
<td>Benjamin Flowers</td>
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<tr>
<td>COA 4803</td>
<td>From the Melting Pot to the Food Court</td>
<td>Sabir Khan</td>
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### Fall 2009

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<tr>
<td>BIO 4740</td>
<td>Biologically Inspired Design</td>
<td>Jeanette Yen</td>
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<tr>
<td>COE 3002</td>
<td>Intro to Microelectronics and Nanotech</td>
<td>John Cressler</td>
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<td>CHEM 4803</td>
<td>The Art of Talking Science</td>
<td>Paul Houston</td>
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<tr>
<td>PHY 2803</td>
<td>Optical Illusions: Light and Perception</td>
<td>Monica Halka</td>
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<td>HTS 2803</td>
<td>Semester in the City</td>
<td>Greg Nobles/Andrea Ashmore</td>
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<td>LCC 3823</td>
<td>Thoreau's House</td>
<td>Hugh Crawford</td>
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<tr>
<td>INTA 4803</td>
<td>Latin American Identity and Politics</td>
<td>Kirk Bowman</td>
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</table>
THE HONORS PROGRAM

Students Christina Amuzie, Jonathan Effgen, and Vivian Fan assess breakers, timers, and lights in Bobby Dodd Stadium as part of their prize-winning carbon-reduction challenge project for a first-year Honors Program course in the School of Earth and Atmospheric Sciences.

Intellect with an Impact

The Honors Program is one of the most exciting intellectual and cultural opportunities at Georgia Tech. Established in 2006, the program selects a carefully evaluated group of students—approximately 110 per entering class—and works with them over the course of their Georgia Tech careers to exceed their own expectations. Through small sections of core courses and special topics courses, the program emphasizes a creative approach to learning and inspires greater intellectual engagement. It fills a unique niche at Georgia Tech by attracting and supporting talented students who are passionate about pursuing ideas in new ways.

"The Honors Program seeks and encourages students who are intellectually and culturally energetic and challenges them to take full advantage of the remarkable opportunities available in the classroom, the campus, and the larger community."

- Gregory Nobles, Professor and Director of the Georgia Tech Honors Program

The Georgia Tech Honors Program selects participants who:

- possess strong academic credentials, but seek more from their undergraduate experience outside of traditional curricular parameters;
- thrive in an academic setting that encourages close interaction with faculty members and challenges them to explore ideas and their applications in entirely new ways; and
- demonstrate a commitment to involvement in cultural activities, volunteer work, and student groups.

Private support is critical to the future of the Honors Program, ensuring Tech's ability to provide an innovative approach to learning for generations to come. It helps to broaden the scope of interest in creative learning on campus by encouraging students to pose questions rather than simply accept answers. By funding program enrichment and student and faculty development, Tech alumni and friends will have an enormous impact on the Institute and its commitment to the future of undergraduate education. With the support of donors, the Honors Program can realize its potential as the center of intellectual innovation and activity at Georgia Tech.

Building Community

A strong sense of community, mutual support, and collaboration are just some of the keys to a well-rounded and fulfilling undergraduate experience at...
Georgia Tech. The Honors Program brings together a diverse group of students to share the experience of living and learning together. These students establish friendships based on common interests, explore ideas inside and outside the classroom, and have fun while learning. Throughout the students’ time at Georgia Tech, the Honors Program provides a framework for interaction and motivation, challenging them to expand their horizons as well as their opportunities for intellectual, social, and cultural involvement. Private philanthropy is critical in securing the resources that will sustain this residential program over the long term.

New Directions in the Classroom and Beyond

Honors Program courses are taught by Tech professors who are interested in pushing boundaries, exploring uncharted intellectual territory, and sharing the journey with their students. The results are extraordinary. Special topics courses reflect the Honors Program’s commitment to nurturing intellectual curiosity and passion. Some courses explore intriguing questions that transcend the traditional academic disciplines:

- The Origin of Life
- The Physics of Music
- The Psychology of Creativity and the Arts

Others enable students to connect learning to immediate concerns in society and local communities:

- Race, Space, and Architecture
- Energy, the Environment, and Society
- Technology and Disasters: Causes, Prevention, and Recovery

The Honors Program also sponsors guest speakers and cultural events, which are open to the whole campus community, to encourage a lively exchange of ideas outside the classroom.

A Model for Creative Learning

Emphasizing the role of students in shaping their own intellectual development, the Honors Program sponsors an important initiative, the Student Challenge Fund, which supports student ideas for projects that require modest funding. Successful student-led projects include the Trailblazers, the Bicycle Initiative, an alternative energy student research group, a campus food garden, and assistance for national and international conference presentations.

Funding the Future

In a remarkably short time, the Honors Program has become a striking success story. It is an increasingly vital part of campus life, providing both a model and a challenge that can help direct the intellectual and cultural future of the Institute for the twenty-first century. But there are many challenges to securing the Program’s future, and private philanthropy is the key to meeting them. Gifts directed toward faculty support, innovative course development, student-inspired initiatives, and academic and cultural activities will make all the difference in ensuring the longevity and vitality of a program that cultivates the curiosity, passion, and engagement of exceptional Georgia Tech students.
Endowments are forever, providing a perpetual stream of income managed to maintain buying power for all time. Endowments transcend brick and mortar, and provide the Institute with the financial foundation upon which it is built—its faculty, its student body, its facilities, and its programs—enhancing quality and access for current and future generations. Restricted endowments provide continuity of purpose, while unrestricted endowments provide financial stability and flexibility to meet ever-changing institutional needs and seed funds to explore emerging opportunities. Through sound investment in a balanced portfolio, earnings from permanent endowment generate a steady flow of funding in perpetuity, while the principal remains inviolate.

For Permanent Endowment: Unrestricted Endowments
The Institute encourages college, school, and program-based endowments—both restricted and unrestricted therein—to meet its long-term needs. Endowments restricted to the Honors Program, but unrestricted in use therein, provide maximum flexibility in meeting pressing needs and seed funding for new initiatives.

Named Honors Program
Named Unrestricted Endowment Fund

For Permanent Endowment: Faculty Support
Honors Program Director’s Chair
The success of the Honors Program depends in part on the ability of the director to support fresh initiatives and pursue unanticipated opportunities. A discretionary fund associated with the director’s position will provide flexible financial resources for current use and enhance the Institute’s ability to attract and retain outstanding leaders to serve as director now and in the future.

Named Director’s Chair

Faculty Challenge Fund
The cornerstone of a great Honors Program is a great faculty who teach innovative and intellectually engaging courses, challenging students to explore new ways of thinking and to gain new knowledge through research. To encourage and support faculty members and their respective academic units to develop fresh, innovative curricular initiatives, the Honors Program seeks to provide financial compensation for the faculty members’ preparation for and participation in new courses taught under the auspices of the Program.

Named Faculty Challenge Fund
THE HONORS PROGRAM

For Permanent Endowment: Program Enrichment

The Honors Program serves as a beacon to exceptionally bright and highly motivated students. In addition to providing them with challenges and opportunities, the Program plays an increasingly important role as an intellectual and cultural asset for the whole campus community. To that end, the Honors Program initiates and sponsors activities that will engage a broad audience in a lively exchange of ideas outside the formal structure of the classroom.

Student Challenge Fund

To encourage innovation with an impact, the Honors Program makes seed money and/or matching funds available to students who plan and propose special projects related to community service, leadership, global learning, or social engagement. A formal grant-writing procedure, with both initial proposal and progress report, allows students to gain valuable experience in the ways grants are evaluated and appropriated by funding agencies.

Named Student Challenge Fund

From $25,000-$500,000

Citizen/Scholar Speaker Series

This series invites to campus speakers who have in some way made a significant contribution to science, the arts, or to society as a whole. In addition to giving a lecture open to the public, these speakers meet with students in small groups, discussing their own work and experience and, in the process, providing a possible model of responsible success for the students.

Named Citizen/Scholar Speaker Series Fund

From $25,000-$250,000

Artist/Practitioner-in-Residence

To accompany the series of short-term campus visits by speakers, this initiative seeks to bring innovative thinkers and leaders to campus for a more extended period, from a month to an academic year, to interact with students as models and mentors both in and outside the classroom. While they pursue their own creative and intellectual activities during their stay at Georgia Tech, these visitors will also be involved in broader-based activities, working with students and faculty on longer-term projects that can have a lasting impact on the campus and the larger community.

Named Artist/Practitioner-in-Residence Fund

From $25,000-$250,000

For Current Operations

Unlike endowment, current operating funds are available for use in the year in which they are received. Gifts and grants may be designated to the Honors Program and may remain unrestricted in use therein. Such funds support core academic and programmatic goals, as well as provide seed funds for emerging initiatives. Restricted gifts and grants may support a variety of initiatives within the Honors Program, including, but not limited to, faculty support and academic program enrichment.