



COLLEGE OF
Arts and Sciences



Strategic Plan
College of Arts and Sciences
The Ohio State University
2011-2016

Strategic Planning at The Ohio State University

Supporting Faculty, Students, and the Structures that Foster their Success

Ohio State's future will be defined and driven by an unwavering commitment to our faculty, students and the structures—physical, administrative, curricular, and financial—that will foster their success. Such a commitment is founded in the overarching principles of the institution's vision, mission, values, and core goals.

VISION

The Ohio State University is the model 21st-century public, land grant, research, urban, community engaged institution.

MISSION

The University is dedicated to:

- Creating and discovering knowledge to improve the well-being of our state, regional, national and global communities;
- Educating students through a comprehensive array of distinguished academic programs;
- Preparing a diverse student body to be leaders and engaged citizens;
- Fostering a culture of engagement and service.

We understand that diversity and inclusion are essential components of our excellence.

VALUES

Shared values are the commitments made by the University community in how we conduct our work. At The Ohio State University we value:

- Excellence
- Diversity in people and of ideas
- Inclusion
- Access and affordability
- Innovation
- Collaboration and multidisciplinary endeavor
- Integrity, transparency, and trust

CORE GOALS

Four institution-wide goals are fundamental to the University's vision, mission and future success:

Teaching and Learning: to provide an unsurpassed, student-centered learning experience led by engaged world-class faculty and staff, and enhanced by a globally diverse student body.

Research and Innovation: to create distinctive and internationally recognized contributions to the advancement of fundamental knowledge and scholarship and toward solutions of the world's most pressing problems.

Outreach and Engagement: to advance a culture of engagement and collaboration involving the exchange of knowledge and resources in a context of reciprocity with the citizens and institutions of Ohio, the nation, and the world.

Resource Stewardship: to be an affordable public university, recognized for financial sustainability, unparalleled management of human and physical resources, and operational efficiency and effectiveness.



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Letter from the Executive Dean

The College of Arts and Sciences was reunified by a unanimous vote of the university's Board of Trustees on June 18, 2010, reincorporating the five legacy colleges of the former Federation of the Colleges of the Arts and Sciences, including Arts, Biological Sciences, Humanities, Mathematical and Physical Sciences, and Social and Behavioral Sciences. Together the departments and schools, and the many additional centers and institutes within Arts and Sciences, form the academic core of The Ohio State University, and through the new College's structure have a greater capacity to amplify resources and maximize the potential for excellence in a visible, coherent, effective, and efficient way. Presented in this document is the College's first unified vision for the future that will serve as a guide for our future development as a unified and comprehensive College of Arts and Sciences.

The College of Arts and Sciences is big and comprehensive. There are approximately 1,100 faculty members in Arts and Sciences who study just about every conceivable subject. Our arts, humanities, social and behavioral sciences, and natural and mathematical sciences faculty are among the best in the world. Members of our faculty were responsible for expenditures of nearly \$82 million in federal grant support in FY11 (17% of the university's total expenditures) and in 2009-10 our arts and humanities faculty wrote and published 163 books, compositions, journals, major exhibitions, performances and recordings. Our arts and sciences units provide more than 70% of undergraduate student credit hour production (including more than 90% of the general education teaching) and almost 60% of all credit hours taught on campus. Many faculty and students are engaged in the community and provide quality service for their fields. The College of Arts and Sciences aims to achieve excellence in research and other creative endeavors, provide outstanding learning opportunities for our students, and serve communities outside the university's borders through outreach and engagement activities.

"We are moving forward aggressively to recombine Arts and Sciences — to make it the most powerful intellectual platform in the country by removing structural and budgetary boundaries and facilitating faculty collaboration. That work is, in many respects, the single most important intellectual venture at Ohio State during the past 20 years — and may well be for the next 20 years."

President E. Gordon Gee
Address to the Faculty
Thursday, May 14, 2009

To this end we have been engaged in a comprehensive strategic planning process for Arts and Sciences, a planning process that attempts to capitalize on the comprehensive nature of the College. The strategic plan we have developed benefitted from the input of faculty, department chairs, program directors, and the College administration. The plan was vetted and discussed by our departments and programs, by working groups that were organized to discuss individual initiatives and help set priorities for the College, by subcommittees of the Faculty Advisory Council that provided a comprehensive, cross-cutting view of the initiatives, and by the College's associate deans and deans. The strategic plan that has resulted from this process recognizes that we have strong traditional disciplines that have contributed significantly to the university's reputation. The plan also celebrates the emerging spirit of collaboration and cooperation between faculty and students in our traditional units as they engage in interdisciplinary and cross-disciplinary research and teaching – a spirit that is helped in part by the formation of the comprehensive arts and sciences college two years ago. The plan also addresses our responsibility to engage members of the community, from the greater Columbus area to locations around the globe.

We have defined four basic objectives for the College of Arts and Sciences as we move forward:

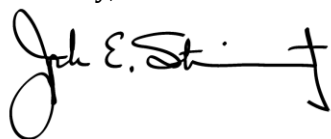
1. We will promote a spirit of collaboration and cooperation that embraces the diversity of scholarship in the College and increases opportunities for interdisciplinary and cross-disciplinary research and teaching, while at the same time recognizing the importance of maintaining our traditional areas of strength.
2. We will provide new innovative teaching opportunities for our faculty and enhanced learning opportunities for our students, and we will provide undergraduate and graduate courses and programs that challenge our students and match their excellent academic credentials.
3. We will enhance our community outreach and engagement and recognize that we have a responsibility to the communities outside our campus borders to disseminate knowledge, provide valuable expertise, and engage the public.
4. We will continue to operate an efficient College that directs as many resources as possible toward our teaching, research, and outreach missions

After engaging our faculty, staff and students in wide-ranging discussion concerning the strategic plan, 12 initiatives have emerged that we believe will assist us in meeting our four overarching objectives as we move forward in the future. These initiatives include:

- Biological, Psychological, and Social Pathways to Health and Wellbeing
- Cyber-Enabled Discovery
- Decision Sciences and Human Behavior Change
- Enhancing the Student Learning Experience
- Environment, Energy and Sustainability
- Humanities—The Core Understanding of the Human Condition
- Integrated Arts, Media, and Enterprise
- Internationalizing the Arts and Sciences Curriculum and Programs
- Literacy, STEM and Research Interpretation
- Measurement and Imaging
- Multi-scale Science
- Urban Studies

The College of Arts and Sciences plays a major role in the scholarship and engagement that goes on at Ohio State and this fact is reflected in the major initiatives we have defined. Our strategic plan provides the roadmap for our future success in all areas.

Sincerely,



Joseph E. Steinmetz, PhD
Executive Dean, College of Arts and Sciences
Vice Provost, Arts and Sciences

College Overview

The College of Arts and Sciences is the academic heart of the university. We provide the core general education curriculum for all undergraduates and host nearly 80 majors. With 39 departments and schools, numerous world-class research centers, and more than 2,000 faculty and staff members, we are a unique university community that encourages dynamic conversations, fosters broad collaborations, and creates an environment of lifelong learning.

“The arts and sciences are the academic core of The Ohio State University and of distinguished universities worldwide. This is because the areas of study that comprise the arts and sciences are foundational to all university education.”

Provost Joseph A. Alutto
Address to the University Senate
February 11, 2010

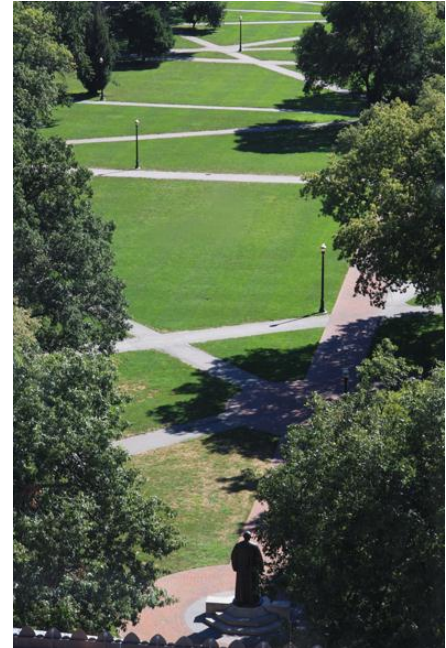
The College of Arts and Sciences is arguably the largest of its kind in the country and has the potential to be among the best as well. Above all, the College is extremely comprehensive in its programs, course offerings, and research with students and faculty who are artists, social and behavioral scientists, humanists and life, physical and computational scientists. The faculty hired by the five legacy colleges over the years is very strong—Ohio State is blessed with many great teachers and great scholars in the arts and sciences. The undergraduates attracted to arts and sciences majors and minors have steadily improved over the years and are now among the very best in the Committee on Institutional Cooperation (CIC). Graduate programs in the College also are very strong, many ranked in the top 20 in the country by several polls. Based on our strong existing foundation, and, with careful planning, the arts and sciences at Ohio State can be even better.

Given our structure as a comprehensive college, we have an excellent opportunity to further enhance our interdisciplinary teaching, research, and creative activity, both inside and outside of Arts and Sciences. Indeed, much of the excitement in higher education is at the intersections of our traditional disciplines, and an increasing number of faculty members we hire come with interests and expertise that span more than one of the traditional fields that make up the College. This new interdisciplinary academic world provides the main backdrop against which our strategic plan for Arts and Sciences has been developed. We plan to hire faculty who contribute to and have an impact on more than one department or program. We want to develop and support interdisciplinary programs that reflect the current state of affairs in higher education. Our strategic planning process was undertaken to create a blueprint that drives progress in arts and sciences through the further strengthening of our traditional disciplines in concert with developments in new interdisciplinary initiatives. The end result should be a highly innovative, collaborative, and cooperative College of Arts and Sciences that will define higher education for years to come.

Mission

The College of Arts and Sciences is the university’s primary laboratory for inquiry into human expression; social and cultural systems; and physical, biological, and cognitive processes—that is, defining what it means to be human and our relationship with the universe. The areas of teaching and learning, discovery and innovation, and outreach and engagement that comprise the arts and sciences are broad and comprehensive and are foundational to all university education and professional preparedness. The basic objectives of the College of Arts and Sciences mission are to:

- Provide learning opportunities for our students that are designed to develop a rigor and openness of the mind that enhances quantitative as well as creative thought; computational, technological, and communicative skills; historical consciousness and ethical perspective; literary understanding and artistic appreciation; international literacy and curiosity; and regard for values unlike one's own, while at the same time preparing them for a lifetime of change.
- Engage in innovative discovery and creative activities in the wide range of basic and applied areas that make up the comprehensive College of Arts and Sciences, including work in the arts, behavioral sciences, computational sciences, humanities, life sciences, physical sciences, and social sciences, with an overarching goal of seeking solutions to complex problems that have captured the world's collective attention.
- Serve the many communities located beyond the campus boundaries through engagement and outreach activities designed to disseminate knowledge widely and provide expertise and experience that is beneficial to the local community, State of Ohio, the country, and the world.



Vision

We envision a College of Arts and Sciences that: (1) fosters opportunities for collaboration and cooperation among diverse faculty in pursuing research and scholarship but at the same time recognizes and celebrates our traditional areas of strength; (2) provides students with innovative, high quality, and challenging learning experiences that match their high level of aspiration and achievement; and (3) reaches out and engages individuals outside of the university.

Values

We value:

- The comprehensiveness that the College of Arts and Sciences offers
- The importance of a liberal arts and sciences education for all Ohio State students
- The importance of preparing our students to be citizens of the world
- The importance of preparing our students for an ever-changing world
- Interdisciplinary approaches to learning, discovery and engagement activities
- The hiring, development and retention of faculty whose scholarship and teaching significantly impacts the world around them
- Diversity in our faculty, staff and students

- The importance of faculty and staff development and input in the life of the College
- Developing a culture of excellence based on merit and accomplishment

Commitment to Diversity

The College of Arts and Sciences at The Ohio State University embraces diversity as a key component of excellence and the pursuit of eminence. We are committed to promoting the principles of equal opportunity, affirmative action, and multiculturalism in which all individuals are valued, respected, unobstructed in their pursuit of excellence, and provided opportunities to flourish.

The College's Diversity Statement

The College of Arts and Sciences affirms that academic excellence depends upon recruiting and supporting a diverse population of faculty, staff, and students and on encouraging this diverse faculty to pursue innovative research, transformative teaching and learning, and engaged outreach. Diversity is everyone's goal, everyone's priority, and to everyone's benefit. The College is therefore committed to actively building and sustaining a community in which people of diverse race, ethnicity, culture, veteran status, marital status, socio-economic level, citizenship, national origin, religious belief, physical ability, sexual orientation, gender identity and expression, age, class, and political ideology fully participate in, contribute to, and benefit from the resources and activities of its departments, centers, and programs. Moreover, the College is committed to promoting the university's policies against discrimination and to increasing the participation of individuals from historically underrepresented groups at all levels, including within its administration.

Our goal is to create workplace and classroom experiences that promote academic excellence through cultural and intellectual diversity and are free of intolerance and coercive behaviors. In an era of increasing globalization, developing the multicultural competence of the College contributes critically to achieving excellence in research, teaching, and outreach. Innovations in inquiry, curriculum, pedagogy, and engagement should be undertaken through the lens of cultural pluralism and diversity. Deepening our institutional commitment to, competence in, and understanding of diversity will contribute to the international excellence, creativity, and prestige of the College in all of its work.

In its expansive understanding of inclusion and in its commitment to excellence and innovation in research, teaching, and outreach, the College is ultimately committed to incorporating diversity into every level of its strategic planning as we move forward. This is an underlying assumption of all of our strategic planning.

Strategic Scan

The External Environment

There are at least two major external pressures from outside of The Ohio State University that will significantly impact the future of the College of Arts and Sciences: (a) a national movement that seems to be placing less emphasis on the value of a liberal arts-based education and an increasing emphasis on the importance of a jobs- or career-based college education, and (b) the emergence of an increasingly more interdisciplinary approach to scholarship and teaching. We believe that we are in a position to deal with both of these pressures directly as we move forward.

For the last several years there have been an increasing number of voices that have questioned the value of a liberal arts college education in favor of a more direct, career- or jobs-related college education. Given the recent economic downturn around the world, the discussion on this issue has heated up again. We remain dedicated to the idea that in the long term there is great value in providing our students with an excellent liberal arts and sciences experience—that is, providing them with opportunities to develop their creative side, become excellent thinkers and problem solvers, and hone their communication skills and abilities. Perhaps most importantly, we believe this experience prepares our students for a lifetime of change, as they most certainly will encounter. In essence, we believe it is a mistake to narrowly focus their education at this critical time of their lives. However, it is not good enough to simply state these ideals as facts. As we move forward we, as a College, will work to prove the value of the liberal arts and science education through the rigorous assessment of what our students learn and how they grow as students. And we will not forget that students eventually go out in the world and work in a variety of careers. Our strategic plan includes efforts to make a stronger tie between their liberal arts and science education and the careers they have after leaving Ohio State.



The second external pressure the College is facing at this time is the growing movement toward interdisciplinary and cross-disciplinary approaches to scholarship and teaching. Our college is built on 39 individual units that have long-standing histories and strengths that have not always operated in a spirit of cooperation and collaboration. Yet, the academic world is increasingly interdisciplinary as our scholars study increasingly complex problems and our students demand multiple views and insights into what they are studying and learning. This situation has created a natural tension between our traditional disciplines and the emerging interdisciplinary pursuits at the borders of our traditional disciplines. Our strategic plan recognizes this tension and attempts to create an environment that encourages the development of interdisciplinary pursuits that are based on strong disciplinary foundations. Both approaches to scholarship and teaching can and should coexist.

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Internal Environment

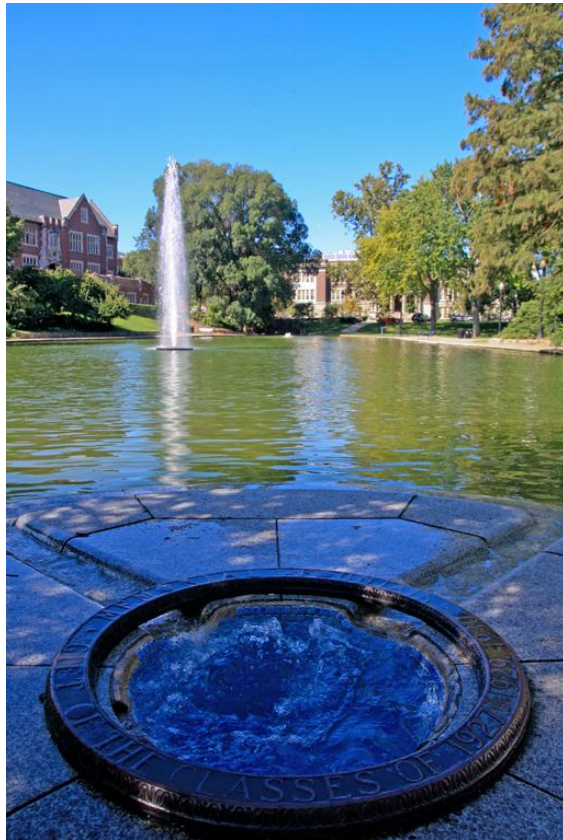
The recent restructuring of the arts and sciences here at The Ohio State University provided an excellent opportunity to take a fresh look at how we teach students and conduct research. The restructuring eliminated some barriers that in the past prevented faculty from teaching and conducting research across unit boundaries. It also provided an opportunity for us to collectively think about how resources are spent to deliver necessary services in areas like communication, student advising, information technology, and human resources. And the reunification of the College has resulted in a larger collective budget that enables us, through reallocation, to invest in new programs that benefit faculty and students while at the same time lets us continue to invest in our traditional strengths. Given the breadth and depth of the unified College's faculty and programs, we are well positioned to help advance the university's strategic vision in the areas of teaching and learning, research and innovation, and outreach and engagement.

We already have seen some successes that can be attributed at least in part to the restructuring of the arts and sciences. New multi-disciplinary degree programs have been created or are on their way to final approval, such as majors in neuroscience and sexuality studies. We are in the process of merging some departments that will result in stronger units that can compete more effectively at a national level. For example, the Department of Molecular Genetics recently combined with the Department of Plant, Cellular and Molecular Biology, and the Department of Biochemistry is in the process of merging with the Department of Chemistry. We have increased investment in the Interdisciplinary Graduate Programs in the life sciences and environmental sciences and have begun working with other colleges on campus to create a framework for the future success of these programs. On the fiscal side, to date we have realized over \$3 million in savings on staff costs due to combining offices at the center of the College. Also, we were able to retire the debt that accumulated in the legacy College of Mathematical and Physical Sciences as well as launch a number of new capital projects to improve facilities on campus, especially for the arts. Our ability to operate in a stable fiscal climate is at least in part a result of having a larger base of funds on which to make fiscal decisions.

There are some internal challenges ahead for the College of Arts and Sciences. Perhaps the biggest challenge is cultural in nature. For the last 40 years, arts and sciences on campus were parsed into five independent colleges, which at times were more competitors than partners. This situation may have been aggravated by the change in Ohio State's budget model eight years ago: student credit hour generation often became the dominant determinant of budget allocation and investment at the individual unit level. We hope to change the culture in the College from one of competition to one of cooperation and collaboration—this strategic planning process provides an opportunity to define and reinforce this cultural change.

Second, in general cross-department hiring of faculty and staff has not been encouraged. As a result the development of programs at the intersections of our traditional departments has lagged behind other institutions, even though many of the recent exciting developments in higher education have been at these intersections. Our emphasis on the development of strong interdisciplinary programs as part of this strategic plan should address this situation.

Third, it is clear that over the last 15-20 years there has been a steady improvement in the academic credentials of undergraduate students who enter Ohio State—our students are among the



best in the CIC. It is not clear, however, whether the programs we offer students have kept pace with the quality of students at the university. Our conversion to semesters, as well as strategic planning efforts, will aid us in assessing the classes and programs we currently offer our students, with an eye toward providing the innovative and challenging learning experiences these outstanding students should receive.

Lastly, it has been several years since the size of our various graduate programs has been examined. External reviews of our graduate programs have consistently indicated we should examine the relative size of our programs, as well as current areas of concentrations within each program, as graduate program size has traditionally been linked more with undergraduate teaching demands and less to demands for graduates in the field or the current state of graduate education in the field. The strategic planning process will give us an opportunity to examine where resources associated with graduate education are directed.

In summary, it seems that the time could not be better for moving forward with a comprehensive strategic plan for the College of Arts and Sciences which addresses the vision that has been defined for the university:

1. *Providing an unsurpassed, student-centered learning experience led by engaged, world-class faculty and enhanced by a globally diverse student body,*
2. *Creating distinctive and internationally recognized contributions to the advancement of fundamental knowledge and scholarship and to the solutions of the world's most pressing problems,*
3. *Establishing mutually beneficial partnerships with the citizens and institutions of Ohio, the nation, and the world so that our communities are actively engaged in the exciting work of The Ohio State University, and*
4. *Becoming the model for an affordable public university recognized for financial sustainability, unsurpassed management of human and physical resources, and operational efficiency and effectiveness.*

The vast academic diversity found in the College of Arts and Sciences may be its greatest institutional strength, and we are confident that we will contribute significantly to the university's strategic plan in many areas. In addition, this strategic planning process provided an outstanding opportunity to assess and affirm support for our traditional strengths and guide how we invest further in these areas, some of which may not seem obvious in the university's plan. In the end these efforts should greatly assist us in advancing the College's primary objectives: to facilitate the interdisciplinary and disciplinary research, scholarship and creative works of our world-class

faculty; to provide our excellent students with innovative, first-rate learning experiences; and to serve the public outside campus boundaries.

To this end, we have created a strategic plan for the college that is based on 12 initiatives described below. These initiatives share some common principles that will guide the College's decision-making concerning future developments and investments. These principles include:

- Wherever possible we will hire faculty whose research and teaching is interdisciplinary in nature; that is, faculty who can impact multiple areas of the College and the university, especially related to the university's strategic plan.
- We also will be mindful of the need to maintain our traditional disciplinary strengths when we hire faculty, in part because hiring strong interdisciplinary faculty is based to a large extent on strong disciplinary foundations.
- We will examine all of the College's policies and procedures with an eye toward developing streamlined procedures and processes that free faculty and staff for the real reason we are here – to teach students and create, acquire, and disseminate new knowledge
- We will develop an evaluation and compensation system for the College that recognizes the wide and varied contributions made by our faculty and staff. For faculty, this includes contributions to “non-traditional” approaches to research and scholarship, participation in interdisciplinary research and scholarship, development of innovative teaching, and participation in community outreach and engagement.
- We will explore ways to create innovative teaching opportunities for our faculty and new learning opportunities for our students, such as the incorporation of eLearning methods, team-teaching, and the development of new curricula and courses that tap into the talents of our faculty and provide challenging academic programs for our excellent undergraduate and graduate students.
- We will work to diversify the faculty, students and staff on every dimension possible.
- We will provide development opportunities for our staff to enable them to grow professionally, while providing the College with enhanced service.

Succeeding in Our Strategic Focus Areas

To reach the objectives described above, we engaged the College of Arts and Sciences faculty, staff, and students in a comprehensive strategic planning process that attempted to link the strengths and future direction of the College with the university's formal strategic plan. We began this process by discussing with department chairs and program directors where our individual units might make contributions to the university's plans and other areas of development along with future directions we might go as a college. From these discussions, we have identified a number of themes or initiatives that were relatively general in nature but would engage large numbers of our units and their faculty. Our departments and programs spent some time discussing the initiatives and where they could potentially be involved. From these discussions, 12 strategic initiatives emerged. Working groups composed of faculty and students then reviewed the initiatives and provided some further guidance including a prioritization of programs within each initiative. Next, topical subcommittees of the Faculty Advisory Council reviewed the recommendation of the working groups with an eye toward making connections between initiatives as well as further refining them. In the end, 12 initiatives were formulated. These resulting initiatives are described here and essentially make up the College's strategic plan.

Biological, Psychological, and Social Pathways to Health & Wellbeing

What leads to health and wellbeing? Do the answers differ at various life stages and for differing groups of individuals? Given individuals' varying genetic, biological, and psychological constitutions, the variability of humans' social, family, economic, linguistic, and physical environments, and the complicated interactions among all of these factors, can we get to population-wide models and individualized maps to health? Might these maps and models generate the discoveries, treatments, technologies, models, and products that create a thorough understanding of the nature of wellbeing and thus how to individualize the strategies for its improvement?

Ohio State researchers in the Arts and Sciences have been involved in studying a number of these issues from either the micro-level study of individual health determinants and treatment outcomes or the macro-level study of health across various populations (men, women, African Americans, immigrants, elderly, poorer populations). Few, however, have worked across the micro- and macro-levels of analysis to develop a comprehensive picture of the determinants and consequences of health and well-being across the lifespan. To shed new light on the interaction of complex biological, psychological, and social systems, work requires powerful new tools (e.g., functional Magnetic Resonance Imaging technology), data analytic techniques such as network analysis, and large samples. Already available, to some degree, to Ohio State researchers, these tools have allowed them to begin to explore of such questions as: What constitutes and how do we measure health and well-being across the lifespan?; What constitutes healthy aging?; What is the role of family and social-institutional factors in the health and well-being of adolescents and adults?; and What complex



interactions of genetic, neural, and biochemical mechanisms mediate the positive social relationships that are so essential to health and well-being?

We believe that Ohio State can and should be the nationally- and internationally-recognized home for answers to these and related questions – answers that respond to the burgeoning needs of an aging population, healthcare providers, and commercial providers of healthcare products. Focusing on health, not solely on disease, is the promising direction of healthcare globally, a direction that The Ohio State University has the capacity to spearhead. Truly transformative discoveries that fundamentally alter our understanding of health and well-being require not only tools, samples and large data sets, they also require structures and programming that bring researchers from across disciplines together to address common problems at multiple levels of analysis. This initiative builds upon existing university strengths but goes far beyond them.

Once realized, the priorities under this initiative will make major contributions to the Health and Wellness discovery area in the university’s strategic plan.

- Priority 1: Develop and patent a large scale, representative, and longitudinal data base (Information Bank) that captures normative markers of health and well-being. The markers collected should be comprehensive and should address the multiple levels of analysis idea that is focal to this initiative
 - Develop sampling methods for target populations; identify key markers [including, but not limited to genetic and epigenetic analyses, brain images (EEG, MRI, fMRI, DTI), hormonal levels, assessments of cognitive and perceptual functioning, personality characteristics, social, emotional, and behavioral patterns or styles, environmental factors, speech recordings and acoustic assessments, demographic, SES, lifestyle status] and critical health and wellbeing outcomes; design and construct database that extends data collection over multiple waves, generating ongoing multilevel data resources that can be amended to include new data/foci in order to be responsive to opportunities for research collaborations across disciplines; development and dissemination of tools and data analytic techniques that will permit hypothesis testing across levels of analysis
 - Use work on construction and analysis of data in Information Bank as a teaching tool at undergraduate, graduate, and postdoctoral levels
 - Market data base to scientific and business partners in Ohio and at national and international levels.
- Priority 2: Develop an Institute on Health and Well-being that will oversee the Information Bank, will coordinate the activities (research, seminar and workshop, grant, patent, and commercial activities) of three research concentrations, and will oversee associated curricular developments
 - Establish three new research groups across campus that will be administratively housed under the Institute. These three research collaboratives will focus on (a) the Biological, Psychological, and Social Causes, Consequences, and Promotion of Health Behaviors; (b) Multi-level Analyses of Stress and Health; and (c) Pathways to Health and Well-being across the Lifespan

- Appoint faculty who have expertise working across disciplines and levels of analyses and in one of the three research collaboratives identified above
- Develop and oversee a new, interdisciplinary BS/BA degree in Multi-level Pathways to Health and Well-being
- Develop and strengthen initiatives to translate the fundamental science done in Institute Fellows' laboratories to the public in a way that is understandable, promotes behavior change, and informs public discourse and health policy

Cyber Enabled Discovery

Cyber-enabled discovery (CED) – research facilitated in an essential way by modeling, algorithms, and computation – enables the study of complex natural, human, and technological systems and their interactions in ways that would be difficult or perhaps even impossible to study by any other means. Researchers in the arts, humanities, social, behavioral, natural, and mathematical sciences increasingly use models, algorithms and computation to address intellectual questions and solve research problems. CED skills are important for students, too, as employers increasingly seek employees with sophisticated data analysis capabilities.



The large problems of the 21st century are frequently embedded in or are significant components of very complex systems. Understanding the world around us requires a lens through which we view the world, and the primary lens is a model, or an abstract, simplified view of reality. The model is used for many purposes, including making decisions. The essential features of informed reasoning range from development of the model through connecting the model to data to assessment and improvement of the model. Methodology is the tool that links data and model; simulation provides an alternative means of exploring implications of models in data-poor and theory-rich settings.

CED plays a central role in a broad range of interdisciplinary centers across campus. By building on these investments, and connecting faculty and students engaged in CED across campus, we can simultaneously advance fundamental research and quantitatively address some of the world's most pressing problems. The next generation of citizens needs practical

experience in examining the kinds of public questions explored in all ASC undergraduate programs. Employers are asking us for graduates who have a fuller understanding of global connections, know how to work in diverse teams to solve complex problems, explore policy issues, and build healthy communities. All kinds of organizations are employing cyber-enabled approaches to optimize services, develop new products, and streamline operations. They need access to new CED tools and approaches, and a workforce of data scientists and data literate managers who can help them analyze massive amounts of data for new insights that, ultimately, have a positive impact on the bottom line.

Given the ubiquitous use of modeling, algorithms and computation in research and innovation, the development of priorities described for this initiative will make major

contributions to all three of the discovery areas that have been identified for investment in the university's strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

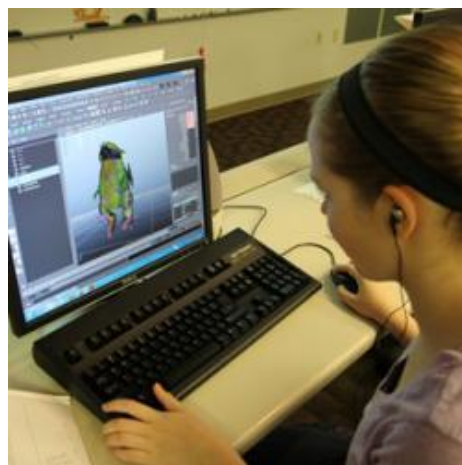
- Priority 1: Establish a CED Network at Ohio State to provide guidance and establish priorities in this rapidly changing approach to research and inquiry across many ASC disciplines
 - Inventory current programs, talent and support, and to identify possible 1- and 3-year learning, discovery and engagement goals
 - Convene working groups as prioritized by the Network around identified current faculty interest, for example: Models, Methodology, Simulation; Visual Analytics; Learning Through Discovery; Targeted Data Repositories; and Complex Systems
 - Make new appointments that include: interdisciplinary research and collaborative partnerships
 - Create a “virtual collaboratory” to get different areas more engaged with each other and to facilitate sustained real-time collaboration among geographically and organizationally distributed teams
 - Increase funding from external agencies and commercial enterprises
 - Build on the strength of The Advanced Computing Center for the Arts and Design (ACCAD) as a critical part of the CED Network
- Priority 2: Modify and enhance curricula and establish a climate of learning in CED
 - Expand current and develop new degree programs/certifications for undergraduate, post-baccalaureate and graduate levels in CED, for example: GIS in Survey Research, Digital Humanities, Visualization and Analysis, etc.
 - Incorporate into the CED Network semester/year-long programs, seminar series, and short courses about models, methodology and simulation
 - Develop training opportunities where fundamentals from Mathematics and Statistics are coupled with training in discipline-specific research methods for students, faculty and staff to raise the current campus capacity
 - Increase opportunities for students to access common massive data sets through virtual learning tools/environments
 - Develop upper-level undergraduates and graduate student access to the same types of instruments and computational tools faculty use in their research
 - Establish lecture series to introduce faculty to different perspectives and approaches they could apply to their own complex system research
 - Organize curricula around complex system themes; actively help students to become skilled in using CED approaches to work with complex problems
 - Help students apply what they learn through service learning projects focused on complex problems/themes
- Priority 3: Invest in and develop targeted data repositories for teaching and research
 - Focus funding for “working” data (e.g., large amounts of temporary space needed for certain phases of a project) on storage and data management resources that can be repurposed from one project to the next and shared across disciplines

- Inventory existing “preservation” data collections and determine the extent to which they could (or should) fit into national taxonomies or repositories – make the data being preserved at the university shareable beyond Ohio State to maximize its value
- Adopt NSF and other funding agencies data sharing requirements and data management solutions in coordination with the CIC to avoid reinventing the wheel
- Link a specific plan for data collection and management to each of the strategic plan discovery themes
- Collect data to create large numbers of data points through inexpensive devices attached to student, faculty, and staff smart phones

Decision Sciences and Human Behavior Change

We currently are witnessing the middle of a golden age of behavioral research. One of the most active areas of research into human behavior focuses on Decision Sciences. Choice and decision making are key behaviors that permeate everyday life and every level of human interaction, from individuals to small groups, to states and nations, and to multi-national corporations and institutions. Individual and group decisions alter substantive outcomes such as health, energy use, environmental impacts, water rights and use, and poverty.

Within ASC, research in decision science already contributes to each of the three areas emphasized in the university’s strategic plan. In the Energy and Environment theme, research is addressing *people’s understanding of energy and climate systems* (including the cognitive and motivational mechanisms underlying energy use, conservation, product choice, and other climate-relevant behavior), *energy auctions and other market mechanisms* (which could inform current auctions of natural gas resources by the Public Utilities Commission in Ohio or efforts to facilitate time-of-day pricing in residential energy consumption). In the Health and Wellness theme, research and modeling address the *role of emotion in patients’ and physicians’ decisions* (including risk perceptions and anticipated regret over diagnostic or treatment decisions), *numeracy (number ability) and education* (including their relation to risk perceptions, informed choice, and protective health behaviors), *location analysis for healthcare delivery, and organizational context and medical errors* (including the roles of time pressure, staffing and workload issues, and cumbersome or poorly designed procedures for workflow and communication among providers), and *self-control in health and wellness* (including helping patients and others to follow through on recommended actions and long-term goals). In the Food Security and Production theme, a variety of researchers address *agricultural decision making* (including how public attitudes and policies co-evolve with downstream ecosystem conditions such as water quality and, in turn, how farmers respond to these attitudes and policies). Decisions regarding the purchase of local and organic food are also related to this theme.



Yet, at Ohio State and in most universities, research and teaching to address decision making are spread across disparate departments with little overall organization or coordination. Recent efforts at the university to emphasize Behavioral Decision Making (BDM) have provided a core set of

researchers and teachers to guide an effort to create an internationally prominent presence for Ohio State in decision science. Following is an outline of additional structures and initiatives that would establish a coherent and coordinated world-class decision sciences presence at the university.

Further development of teaching and research through realizing the priorities we have defined for the decision sciences will make significant contributions to all three of the discovery areas that have been identified for investment in the university's strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Establish a comprehensive research center in Decision Sciences and Human Behavior Change at The Ohio State University. The College of Arts and Sciences (and the University at-large) has an immense capacity in terms of faculty research and scholarship to support a research center in this area with national and international distinction
 - Appoint a Center Director to oversee and promote the research, learning, and outreach, activities of the Center
 - Develop research collaboratives that promote work on Foundational Approaches to investigating human reasoning and decision-making (i.e., the descriptive, the process-oriented, the normative/rational, and the prescriptive approaches to decision making) and applications to the university's discovery themes of (a) Energy and Environment, (b) Health and Wellness, and (c) Food Security and Production
 - Appoint faculty and postdoctoral and visiting faculty fellows to work in one or more of the above-described research collaboratives. Acquire the requisite space, equipment (including computing, eye-tracking, and physiological recording equipment), and resources (financial incentives for research participants, and personnel for large data collections) to facilitate their research, training, and outreach activities
 - Develop an information portal through which media, decision makers, and the public can learn about the research and policy implications/applications of Ohio State's Decision sciences researchers. The ultimate goal would be to translate the fundamental and applied science conducted under the umbrella of the center to the public in such a way that is understandable, promotes behavior change, and informs public discourse and policy
- Priority 2: Develop curricular programs to enhance graduate and undergraduate learning experiences
 - Develop undergraduate minor in Decision Sciences to be overseen by the center
 - Develop graduate Interdisciplinary Specialization in Decision Sciences

Enhancing the Student Learning Experience

Much of a university's formal education of undergraduates is centered in our classrooms and instructional laboratories where learning takes place through structured lectures, discussions, and active learning opportunities. This approach has historically been valuable and continues to be an important part of the student learning experience. The College of Arts and Sciences also recognizes



that learning can and should take place outside of these formal settings during individualized learning opportunities as well as when working with individuals and groups on- and off-campus.

Our plans are to significantly expand and enhance high quality learning opportunities for arts and sciences students that include improvements in classroom teaching experiences as well developing quality experiences that go well beyond the traditional undergraduate classroom and laboratory, which we referred to as experiential learning opportunities. The further development of student programs is a major goal of

many of the other initiatives that are part of this strategic plan. Many of the other initiatives address opportunities that will contribute to the enhancement of the student learning experience— In many ways this initiative is closely tied to the other initiatives that constitute the overall strategic plan for the College.

It is anticipated that the enhancement of teaching and learning described under this initiative will have a significant impact on all three of the discovery areas identified for investment in the university’s strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Enhancing Experiential Learning Opportunities. Experiential learning opportunities take place outside of the classroom and include individualized or small group learning opportunities. We will enhance existing experiential learning opportunities and develop new opportunities in four areas, internships, service learning, study abroad, and research so that all arts and sciences students can have meaningful and structured learning experiences outside of the classroom.
 - Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities.
 - Increase internships opportunities for College students by enhancing communication with students about internship opportunities and their intrinsic value, working with Ohio State alumni and friends to develop new internship opportunities that are relevant to arts and sciences students and working with departments to incorporate internship opportunities into curriculum and degree requirements.
 - Develop service learning opportunities for College students by creating a college structure to coordinate service learning efforts that is closely connected with the OAA’s Undergraduate Education office and developing additional service learning opportunities for students.
 - Develop new study abroad programs designed to take advantage of the May session of the summer term under semesters; Increase scholarship support for study abroad experiences.
 - Increase undergraduate participation in research by enhancing communication with about available research experiences; creating of a comprehensive data base regarding available research opportunities; developing additional research

opportunities for students; and examining the faculty reward structure for providing undergraduate research opportunities.

- Priority 2: E-Learning. The Ohio State University lags behind other institutions in the development of E-Learning approaches to teaching and learning. E-Learning approaches incorporate technology into learning experiences and can range from hybrid courses in which technology is used in conjunction with traditional teaching methods to completely distance course formats where interactions involving instructors and students occur totally on-line. Our overall goal is to enhance student learning through the incorporation of technology into courses.
 - Develop college guidelines for the development of on-line courses (whether completely on-line or hybrid) and increase the number of courses that use E-Learning approaches including hybrid and distance course formats.
 - Provide faculty with resources to develop eLearning approaches and increase technical support for eLearning projects.
 - Incorporate more interactive tutorials, testing services, and innovative technologies for use in large lecture-type classes to allow faculty to monitor student response, participation, and performance.
- Priority 3: Interdisciplinary Team Teaching. Team teaching can be a valuable approach to enhance the student experience especially when delivering interdisciplinary programs and courses.
 - Develop college policies that encourage team-teaching and address faculty workload issues, course coordination issues, and faculty evaluation issues and increase support at the department and college level for team teaching and encourage its use.
- Priority 4: Advising and Mentoring. Student advising in arts and sciences involves members of the faculty as well as a professional advising staff. We will improve student advising at all levels to enhance our undergraduate student experiences.
 - Increase faculty participation in advising and mentoring undergraduate students.
 - Enhance connections between our professional advising staff and faculty and staff in our departments involved in advising activities.
 - Increase support for academic advising at all levels.
- Priority 5: New Program Experiences. The academic world is ever changing and there is a constant need to update our courses, majors/minors, and degree programs as well as introduce new programs to recognize the changes in the world around us and reflect those changes.
 - Develop new courses, majors/minors, and programs in support of the other initiatives in this strategic plan, especially those programs that are integrated into the research and scholarship areas to be developed in the strategic plan (see other initiatives).

Environment, Energy & Sustainability

The future sustainability of our society is fundamentally coupled to, and limited by, energy and environmental resources. As John P. Holdren, Director of the Office of Science and Technology Policy, put it recently, “Energy is the hardest part of the environment problem; environment is the hardest part of the energy problem, and resolving the energy-economy-environment dilemma is the hardest part of the challenge of sustainable well-being for industrial and developing countries alike.”

Our current energy-environment paradigm is not sustainable. Exploiting energy and environmental resources has driven us toward our current state of extraordinary social, agricultural and technological development. But it has also altered Earth’s biogeochemistry, ecosystems, and climate and exposed our society to risks that are difficult to assess, to hedge and to mitigate. The challenges and uncertainties we face provide us with an unprecedented opportunity to build on our existing strengths and to establish Ohio State as a premier institution fostering learning, discovery and outreach at the nexus of environment, energy and sustainability.



Ohio State is one of only a handful of academic institutions around the country that has the right mix of capabilities, skills and expertise to fundamentally shift how we approach research and education in this area. The Ohio State University has a great deal of relevant expertise in its labs, centers, offices, and networks but they are not fully networked together, campus-wide. By organizing and integrating existing strengths in research and education, in partnership with other colleges, we will develop the capability of assembling the cross-college, multi-disciplinary teams needed to fully address the energy, environment and sustainability question.

Development of the priorities described for this initiative will make major contributions to advancing the Energy and Environment discovery area in the university’s strategic plan.

- Priority 1: Develop a scientific and operational mechanism to (a) identify specific research themes and opportunities as targets for semester or annual focused programs in the area of environment, energy and sustainability; (b) convene relevant university researchers around the current theme to tailor a program of visiting scholars, workshops, short courses, seminars and seed grants; (c) encourage formation research partnerships that will be competitive for external funding; and (d) serve as a nationally recognized center of expertise in this broad area.
 - Possible thematic years include (1) Subsurface energy exploration and exploitation; (2) Alternative energy generation and storage; (3) Environmental policy, law and ethics; mediating environmental conflict; (4) Water and Climate: climate change; sustainable water supply; human dimensions of natural resource use; (5) Biological,

- ecological and agricultural resources response to changing environments; (6) Predictive models and quantification of uncertainty
- Facilitate visiting scholars, postdoctoral fellows and graduate students; develop short courses, seminars, workshops, working groups, and provide seed grants for newly formed research partnerships
 - Establish truly innovative cross-disciplinary research collaborations within and across colleges; and also with the Office of Energy and Environment, the Subsurface Energy Resource Center, Byrd Polar Research Center, and the Environmental Sciences Network
 - Develop innovative and flexible undergraduate majors in environment, energy, and sustainability in which students could choose among several different research foci including science/technology; public policy/law; social/behavioral/economic; and health/wellness
 - Build on the Environmental Science Graduate Program to engage the humanities; natural, social and physical sciences; engineering; and business;
 - Improve coordination and utilization of existing instructional and laboratory capabilities
 - Develop new state-of-the-art research capabilities specifically targeting needs of researchers in environment, energy and sustainability
 - Work with local, regional, and national employers to develop professional degree programs
 - Cultivate industry interactions leading to collaborative research, new funding, technology transfer and training opportunities for students
 - Communication and dissemination of research to policy makers; resources managers, state government agencies; K-12, and the general public

Humanities – The Core Understanding of the Human Condition



The College affirms the fundamental significance of the liberal arts in shaping the contexts for discovery and self-discovery, learning and wise engagement. Pressing global issues require conceptual clarity, historical awareness and cultural understanding, and often demand new ways of thinking about these problems and our relations with others. Research and scholarship in the humanities are indispensable for understanding conceptual foundations, examining normative contexts, and generating fresh insights and approaches

to the challenges of social and technological change. Education for global citizenship increases the need for serious reflection and sustained deliberation about questions of how to live and what is of value in human life. We propose a number of priorities for strategic development in the Humanities to enhance the College’s efforts at understanding the human condition, building new links between Arts and Sciences and other stakeholders in the University, and strengthening the existing links between units within the College of Arts and Sciences.

- Priority 1: Reinvest in the Humanities Institute to allow the Institute to serve as an incubator for new collaborative initiatives and as a point of community contact for the Humanities.
 - Appoint a new director for the Institute
 - Fund a Faculty fellows program providing opportunities from within the faculty or from other universities, and post-doctoral fellows
 - Provide the Institute with administrative assistance to develop an NEH Challenge Grant, and facilitate other grant proposals such as the NEH Collaborative Grants
 - Support symposia, university dialogue and lecture series such as the proposed “Critical Matters” symposium, “Big Ideas” Network, “Presenting Lives” Initiative

- Priority 2: Establish a Center for Ethics and Human Values based on the efforts of the current Innovation Group
 - Confirm and fund the leadership for the center to include: a founding director, associate director and GTA support
 - Assign base level funding that supports an Annual Conference, Lecture Series, and annual COMPAS (Conversations on Morality, Politics, and Society) thematic project that extends across campus. COMPAS should be an annual, coordinated effort across many disciplines
 - Seek external funding to establish a Fellows program that supports external scholars to the Center

- Priority 3: Establish a collaborative and cooperative administrative structure for our language departments that better captures their individual strengths and takes advantage of the physical attributes of Hagerty Hall
 - Establish an Advanced Language Institute to engage high ability language students
 - Develop a research and teaching cohort that focuses on Second Language Acquisition and Pedagogical studies
 - Formalize the curricular publication efforts of our Foreign Language Center to serve multiple disciplines
 - Increase the number of endowed chairs in languages, literatures, and cultures to raise the overall profile of the faculty

- Priority 4: Enhance current research efforts to gain strength, viability, and impact
 - Provide logistical support and informal structures to faculty cohorts who share expertise in a variety of emerging research topics, for example: Translation Studies; Movement Analysis and Documentation; Transnational and Multiethnic Studies Language; Logic, Information, and Computation Analysis, Study of Shakespeare, Digital Humanities
 - Formalize the college commitment to South Asian Studies through the further development of curriculum, creation of a transparent and flexible administrative structure, and a faculty appointment plan
 - Establish policies, fiscal support, and physical locations for journal efforts across the multiple arts and humanities disciplines

- Encourage wide-spread use of Research in View to establish a faculty expertise database for community engagement
- Develop a national publicity campaign to highlight the research/creative activity impact of our faculty including intentionally nominating faculty for appropriate national /international awards
- Create more donor study experiences like History's WWII course model to expose the work of our faculty and increase funding sources

Integrated Arts, Media, and Enterprise

The arts contribute to the civic core of university culture and align with President Gee's vision of an arts portal to the university's main campus and the University Framework's underlying principles. Our mission is to enhance current academic programs, renovate select campus facilities, and through the opportunity to development new curricular initiatives, establish a clustered and expanded arts neighborhood that identifies 15th and High as "the critical pulse on the cultural corridor and historic gateway to OSU."



This initiative seeks to support and amplify existing and newly developing: curricular efforts, arts facilities, and community engagement. We need to sharpen our curriculum and improve our facilities to enable the teaching of artists and scholars to have the skills to launch careers, form companies and ensembles, and contribute to society regardless of their particular career path. The college strives to establish a prominent arts presence and entryway to the campus along with projects that reach out beyond the campus to demonstrate the active contribution and significance of the arts to the larger community. An organic approach to planning, policy development and implementation involving both campus and community partners will guide our vision to be open to new discovery and yet-to-be-discovered

research approaches and evolving technologies. All current visual and performing arts units and well as other university partners will strive to integrate both interdisciplinary research and program-specific research and curriculum.

Current facilities under renovation and all future new construction and renovation will provide essential program-specific resources as well as shared spaces that facilitate collaboration, integration and enterprise. Without inspired curricular changes and improved facilities, outreach, discovery, and the learning objectives of the College in the 21st century will be impossible to achieve.

- Priority 1: Establish an arts neighborhood - a new constellation of space near High and 15th within the larger University Arts District that includes the renovated Sullivant Hall, the School of Music campus and the Hughes, Hayes, Hopkins complex and actively connects university culture, local business, and a broader public community enhancing visibility and accessibility

- Develop fully the Barnett Center for Integrated Arts & Enterprise
 - Create a new Arts Gallery appropriate to further support the burgeoning and top-ten public visual arts program and top-four design program
 - Establish spaces that house: Moving image production; Music, Media and Enterprise; and Arts Management activities that benefit from overlapping programming
 - Create a moving-image and sound production facility dedicated to multi-media production in order to support film studies and screen-based delivery, instruction, and research across disciplines including a Public Screening Theatre
 - Invite appropriate non-ASC units to collaborate on the design, use and polices of proposed facility
 - Improve the working relationship with the Wexner Center to include: improved access to Mershon Auditorium, access and integration of the Wexner Media Arts exhibition series and Wexner Art and Technology Filmmakers' Residency Program
 - Develop a master plan for projected site placement and funding for the relocation of theatre from Drake to the arts neighborhood
- Priority 2: Review and enhance curriculum from an integrated perspective
 - Align faculty and curricular growth of Music Media and Enterprise, Art and Technology, Music Composition, Moving Image Production, and ACCAD through coordinated space allocation and faculty/staff appoints
 - Develop new programs built off existing strengths, including: Curatorial Studies, Interdisciplinary Professional Practices, Moving Image Production, Writing for the Arts (Grants, Artist Statements, Features, etc.), Arts Analysis and Preservation, Production Analysis and Documentation, Multi-media Minor, Sound, Image production for the Sciences, Research Interpretation, Motion Capture, Games for Social Good, Digital History, Digital Humanities
 - Establish an curriculum across the visual and performing arts that features writing for the arts, grant applications, and the development of artistic statements
 - Scheduling a common block across arts unit level scheduling to enable cross-disciplinary work
 - Form and formalize "The Lantern Media Group," to include the *Lantern* newspaper, *Lantern* "On-Line" and Buckeye TV closed circuit television
 - Priority 3: Develop creative community partnerships, faculty and staff appoints reflecting the necessary institution support for the visual and performing arts
 - Directly link the School of Music Opera Program with the Department of Theatre and formalize programmatic relationships with Opera Columbus, Columbus Symphony Orchestra, and other presenting organizations
 - Increase production support based staffing across arts units to enable cross-disciplinary and inter-disciplinary production efforts
 - Consolidate Gallery management and support staffing under the college
 - Coordinate performances and presenting schedules with CAPA
 - Establish an Arts Extension Specialist
 - Fund a guest artists/scholar program for the college
 - Structure a cluster-appoint opportunity for multiple-current units to enhance their

- own programs and provide a critical-mass of appoints in Moving Image Production
- Partner with WOSU-Public Media for student opportunities

Internationalizing the Arts and Sciences Curriculum and Programs

Without a doubt there is a great need for our students to be prepared to live and work in a global society that is made up of multiple languages and cultures. The College of Arts and Sciences has many faculty members who conduct research and teach in a wide variety of international areas and is



home to language instruction on campus. At this time there is a great opportunity to increase our efforts in internationalizing our academic curriculum and programs across the board so our students can function effectively in our ever-expanding global society. To this end, we will pursue several initiatives that will further expose our students to cultures and experiences outside of this country as well as enhancing our research engagement in areas related to global and international subject matters.

There are multiple mechanisms for internationalizing the curriculum. Our approach is based on a framework consisting of three overarching rubrics: foreign language instruction; internationalizing curricula and programs (other than language instruction); and international experiences. Our goal is to identify on-campus and off-campus approaches that will have a broad and sustained impact on students and faculty and based on these three principles.

It is anticipated that our efforts to internationalize the arts and sciences curriculum and programs described under this initiative will advance all three of the discovery areas identified for investment in the university’s strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Foreign Language Instruction. Enhanced foreign language instruction is critical for the internationalization of students across the university. We propose to:
 - Develop an Advanced Language Institute (ALI) as a critical method for integrating language and professional training for a large number of students. ALI seeks to provide quality language training linked to the student’s discipline-based skills and include a strong set of supporting activities and programs to link language training to service learning, internships, and career preparation. Among other things, the chief activities of the ALI will be to engage the community outside of Ohio State, build a database of internships at local, national, and international locations and service opportunities, and explore international networking opportunities afforded by the development of Global Gateways and other means

- Explore ways to better organize our outstanding language departments to improve the quality and accessibility of language and culture instruction at Ohio State, encourage collaboration between units, and enhance the preparation of our students.
- Priority 2: International Curricula and Programs (other than foreign language instruction). Many curricula and programs across the college are international in nature and these will be enhanced to provide additional international education for students.
 - Strengthen the existing Undergraduate International Studies Program (UISP) by simplifying the BA and BS tracks, offer academically challenging programs and expanding Natural and Mathematical and Arts and Humanities offerings in the IS curriculum, creating professional master's degree programs in international studies, and encouraging the involvement of more fulltime tenure track faculty in the IS program.
 - Increase the number of faculty interested in international teaching and scholarships by appointing faculty with joint appointments in IS and other relevant academic units across the College including faculty whose teaching and scholarship are in areas of international cultures and literature.
 - Enhance the university's capacity for international partnerships in instruction and research.
- Priority 3: International Experiences. International experiences include traditional study abroad programs and study tours, international internships, and international service learning opportunities. We will substantially increase the number of undergraduate students who have some kind of international experience.
 - Establish an incentive-based funding model for developing new study-abroad courses and experiences.
 - Develop new study abroad experiences that range from short-term experiences to longer-term intensive experiences and also reflect the diversity of disciplines in the College.
 - Develop on campus courses that are related and integrated with study abroad experiences.

Literacy, STEM and Research Interpretation

Recent interest in STEM education reflects concern regarding the extent to which the general public fails to understand university research and lacks the scientific and quantitative literacy to be effective stewards of public policy. Along with learning scientific methodologies and developing quantitative literacy, students need to be able to communicate their work to the public: to effectively articulate how research addresses society's most pressing questions and challenges. Moreover, as public discourse moves more and more online, students need to learn to be prepared to work with rapidly changing, social, digital media. Our students can become our best advocates for research as they learn to be well-informed and actively informed citizens.



As part of the university’s mission as a land-grant institution, Ohio State engages with the wider community to share its research, teaching, and service expertise for the benefit of the public. The current interest in building the nation’s STEM workforce has resulted in increased focus on how universities can play a role in fostering student interest in STEM careers in K-12, including the establishment of requirements for outreach and engagement as part of proposals to some state and federal agencies for research funding. The College of Arts and Sciences and the university have

existing facilities and resources that have the potential to expand their current STEM outreach and engagement capacity as well as develop new initiatives.

There is a corresponding increase in the need for an informed electorate that understands the science and technology associated with these issues and the impact that the science technology has on society. From global climate change to teaching evolution in the schools, these issues often require an interdisciplinary understanding that is informed not only by STEM disciplines but also the humanities, public policy, law, and other areas. In tandem with developing a better understanding of these issues, students need to develop skills to communicate that understanding to others as well as critically evaluate the messages presented to them by the media.

Currently, there are very few mechanisms to acknowledge and foster the scholarship of STEM teaching and learning within ASC, much less to direct the insights of this scholarship toward the development of effective curricula and pedagogy. Nevertheless, there is considerable but underutilized excellence in the research-based delivery of STEM content in every department as well as considerable range of capabilities among instructors that must be supported.

It is anticipated that advancing scientific literacy and STEM and research interpretation will be realized through priorities and programs that are developed in conjunction with efforts to advance all three of the discovery areas identified for investment in the university’s strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Partner with the College of Education and Human Ecology, to enhance the K-12 pipeline of teacher preparation and professional development in STEM Fields
 - Establish a clear and coherent program for students that want to be teachers in STEM fields
 - Encourage the adoption of research-based best practices in teaching for the ASC courses in the program
 - Increase “specialized GTA assignments” for students pursuing K-12 licensure
 - Develop a certificate program for in-service teachers
 - Establish a centralized web directory of STEM teacher professional development opportunities
- Priority 2: Improve Resources for STEM Engagement and Research

- Establish of a university-wide collaborative structure for STEM outreach
 - Inventory existing resources and support environment and their current and anticipated needs
 - Enhance of the stemoutreach.osu.edu website to publicize STEM outreach efforts
 - Seek effective ways to assess the impact of STEM outreach programs, examining participants' learning, changes in attitude and long-term impact
 - Develop faculty incentives to enhance the scholarship of teaching and learning, and opportunities for professional development
 - Share innovative formative and summative assessment practices across disciplines
 - Develop resources and short term assistance in developing Multi-media methods for sharing more widely research discoveries
- Priority 3: Enhance Science and Society and the Curriculum
 - Facilitate updating of current and development of new undergrad courses and curricula to improve STEM literacy, focusing on multidisciplinary approaches in areas of societal relevancy and public policy
 - Develop service learning courses that would allow ASC undergraduates intending to enter EHE graduate teaching degree programs to gain experience working with visiting school groups and the general public
 - Facilitate systemic and continuous improvement of existing GE STEM courses to improve multidisciplinary STEM literacy, STEM learning, and STEM recruitment
 - Design with teams of faculty from different disciplines across the college interdisciplinary GEC courses addressing pressing world issues
 - Establish a Teaching Fellow program with ASC to honor and recognize outstanding teaching
 - Develop a certification in science/research communication
 - Train undergraduate students to be peer tutors

Measurement and Imaging

Measurement and imaging tools extend our senses and allow us to perceive the world in seemingly miraculous ways: to see an individual star from across the cosmos, to remotely sense the Earth from orbit, to view the interior of a living brain, to manipulate an individual strand of DNA. The experimental use of these tools leads to deeper understanding of fundamental science and to the development of new technology. Indeed, the use of measurement and imaging capabilities is part of a cyclic pattern of invention - of new tools that lead to new discoveries that lead to new technology, repeating in a virtuous cycle. A recent example is the Global Positioning System whose pinpoint accuracy depends on both general relativity and quantum mechanics for precise location- and time-keeping. Originally developed as a measuring device for the military, GPS is now a ubiquitous cell phone capability that plays an essential role in newly emerging social network technologies.

The skills honed in this cycle of discovery, invention, and innovation are essential for the progress of research, the development of new technology and the training of a highly skilled national workforce. In addition to the technical expertise embedded in laboratories across campus, facilities such as the Imaging Sciences Laboratory, the Campus Chemical Instrumentation Center, and the



Center for Cognitive and Behavioral Brain Imaging have the capability to overcome the limitations of our human senses and reveal new worlds.

Cutting edge research across many areas of science and technology depends not only on our ability to develop novel instrumentation for data collection but also on the mathematical, statistical and computational tools needed to extract knowledge from the data.

Given that advances in measurement and imaging can be applied to virtually all areas of research and innovation, the development of priorities described for this initiative could make major contributions to all three of the discovery areas that have been identified for investment in the university's strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Develop cutting-edge instruments and technology for measurement, imaging and analysis. We will concentrate in four main areas: (1) Informatics, Imaging and Instrumentation (theoretical core program); (2) Measuring the Cosmos from Particles to Galaxies; (3) Measuring a Changing Planet; and (4) Biological, Medical and Materials Imaging.
 - Cluster appointments of faculty in Arts and Sciences departments and complementary departments to grow in these areas
 - Develop world-class, campus-wide, core facilities for bioinformatics and deep sequencing; for proteomics and metabolomics; for structural biology and materials research; and others
 - Enhance training at the graduate and undergraduate levels in advanced instrumentation and in modeling, analysis and informatics techniques
 - Connect different groups on campus engaged in developing new instrumentation to share expertise and infrastructure
 - Leverage existing strengths to develop new remote sensing capabilities and novel microscopies, spectroscopies and sensors
 - Develop the technical workforce by creating internships for students in measurement and instrumentation technology
 - Create gateway for Ohio industries to advanced instrumentation and expertise available on campus, including partnerships that enhance instrument development

Multi-scale Science

The frontiers of science are often found at the extremes of length, time or energy; ranging from attosecond laser pulses and nanoscale manipulation of single molecules, through those intermediates scales representative of life on Earth, to the largest scales characteristic of black holes, galaxies and the overall structure of the universe. Increasingly, however, new scientific opportunities cross multiple scales and can only be addressed by interdisciplinary teams of

researchers that have distinct sets of expertise at one scale or another and have the ability to work effectively with other expert teams.

For example, biochemical, molecular, and evolutionary tools and concepts developed within individual biological sub-disciplines are now applied throughout the life sciences. Through research connecting DNA, cells, organisms, and communities, to ecosystems and the biosphere we can hope to achieve a full understanding of sustainable development and human health and well-being.

Similarly, the development of new materials for computer and information technology, for batteries and photovoltaics, and for bio-engineering, is one of the foundations for technological innovation in our modern economy. Analogous to the connection between DNA and physical characteristics, an increasingly detailed understanding of materials at the atomic level is leading to the design of new materials from first principles. This precise, predictive control of material properties is the foundation for future technological innovation and economic competitiveness.

The priorities described under this Multi-scale Science initiative align well with all three of the discovery areas that have been identified for investment in the university's strategic plan: Health & Well-being, Food Production & Safety, and Energy & Environment.

- Priority 1: Connecting genes to the biosphere. This initiative will be anchored by two growing university initiatives: the Center for RNA Biology (CRB) and the Center for Biodiversity Research and Analysis (CEBRA). CRB concentrates on biology on the shortest time and length scales while CEBRA concerns biology at the longest such scales.
 - Appoint faculty in Arts and Sciences departments and complementary departments in other colleges to grow CRB and CEBRA
 - Develop new initiatives and centers of excellence that interpolate between CRB and CEBRA, for example a Center for Structural Biology that focuses on the structure of membranes and other cellular structures
 - Increase investment in genomics and bioinformatics personnel, equipment and infrastructure - the research capacity needed to bridge scales across all the biological sciences
 - Deliver comprehensive teaching, training and internship programs for students and postdoctoral scholars; including experience from the field to the laboratory and a significant international component
 - Develop consultancy/outreach programs to industry and government and establish incubator programs for translating research and intellectual property into the marketplace

- Priority 2: From molecules to materials to markets. The ability to understand the causal relationship between structure and function of novel materials is ushering in a new technological era in predictive synthesis of materials with desirable properties through the control of atomic and molecular characteristics. Building on existing strengths in materials for alternative energy, biomaterials, and nanoscale materials for sensors we will focus on three major areas of science and technology: (1) Electronic and magnetic materials for information technology and low power computing; (2) Batteries and photovoltaics; and (3) Synthetic chemistry and biology for biological materials and bioengineering.

- Cluster appointments of faculty in Arts and Sciences departments and complementary departments to grow in these areas
- Foster cutting edge research and interdisciplinary collaboration by strategic investment in developing and maintaining world-class research infrastructure
- Develop opportunities for incorporating interdisciplinary training in the undergraduate and graduate curricula, ranging from research opportunities, to technical electives across disciplines to the development of explicitly interdisciplinary course offerings
- Create an Institute for Science, Innovation and Society (ISIS) focused on work-force development, entrepreneurship, job creation, and impact of science and technology on society. The mission of ISIS is (1) Transformational learning that draws students with interests in business and policy to STEM fields and enhances business awareness among students in STEM fields via a new Ohio State Entrepreneurship Institute; (2) Cutting-edge scholarly research on science to inform policy; and (3) assessing the social, medical, technological and economic impacts of research

Urban Studies Initiative

Half of the world's population now lives in urban areas. They grow around dynamic industry clusters, fostered by a regulatory, tax, and governance climate conducive to business development and a high quality of life, health, and safety for citizens. They are intricately connected by



transportation and communication networks. Urban areas are important concentrations of population with distinctive and changing economic and social geographies. In the Brookings Institution's 2007 "Blueprint for American Prosperity," Ohio's 16 metropolitan regions account for 81% of the state's population, 84% of the state's jobs, and 87% of the state's output. Ohio's largest metro areas house more than 75% of Ohio's patenting activity. Urban areas are clearly fundamental to the economy of the state, as points of innovation and development, but also, through their activities and their connections to urban areas across the nation and the world, and to our analysis and understanding of the broader process of economic development.

The Ohio State University is one of very few institutions within the CIC that is located in an urban setting. There are some units and programs on campus that are actively involved in research and scholarship related to urban issues such as the AAAS Community Extension Center; Center for Human Resource Research; Center for Urban and Regional Analysis; the Food Innovation Center; Urban, Regional and Global Studies Program; the International Poverty Solutions Collaborative; and the City and Regional Planning area within the Knowlton School of Architecture. However, given that Ohio State is an urban campus, the institution would benefit from the development of a comprehensive, campus-wide urban studies initiative.

Development of comprehensive programming in Urban Studies has the potential to advance at least two of the discovery areas identified in the university's strategic plan: Health & Wellness and Energy & Environment.

- Priority 1: Establish an administrative structure and appoint a director to develop and oversee the research, curricular, and outreach activities of a comprehensive Urban Studies Initiative.
 - Establish interdisciplinary research collaboratives around three themes: (a) Urban Disparities and well-being, including a focus on disparities in experience and access to resources such as schools, housing markets, financial institutions, medical access, cultural institutions, workplaces; (b) Urban Innovation and Development, including a focus on economic, political, and cultural advancement, and intellectual innovation; and (c) Mobility, Migration, and Social Networks, with a focus on the interconnectedness of people, groups and structures; and (d) the American democratic process
 - Establish interdisciplinary, undergraduate major and minor programs in Urban Studies that would encourage students to examine urbanization and the many issues inherent in urban life, including historical, social, cultural, economic, and political phenomena and that would include robust service-learning and internship experiences
 - Assure an adequate outreach and engagement presence (e.g., a portal through which community leaders could bring their questions and concerns to Ohio State) given the many opportunities to partner with the greater Columbus community

In the preceding section, 12 general initiatives were described that define a planning framework for the College of Arts and Sciences for the future. All 12 of the initiatives align with more than one of the four core goals that have been established in the university’s strategic plan: Teaching and Learning; Research and Innovation; Outreach and Engagement; and Resource Stewardship.

To provide a summary of how the initiatives align with the four core goals, the various initiative priorities and their corresponding implementation strategies are grouped under the four core goals and presented here. Many of these priorities and strategies are relevant to one or more of the three discovery areas: Health and Wellness; Energy and Environment; and Food Production and Food Security.

Teaching and Learning

Provide an unsurpassed, student-centered learning experience led by engaged, world-class faculty, and enhanced by a globally diverse student body.

<p>Biological, Psychological and Social Pathways to Health and Well-being</p> <p>Ohio State researchers in the Arts and Sciences have been involved in studying the biological, psychological, and social pathways to health and wellbeing from either the micro-level study of individual health determinants (genetic, neural, biochemical , personality and cognitive mechanisms) and treatment outcomes <i>or</i> the macro-level study of health across various populations (men, women, African Americans, immigrants, elderly, poorer populations). Truly transformative discoveries that fundamentally alter our understanding require new tools and data analytic techniques, and large, representative, and longitudinal data sets; they also require structures and programming that bring researchers from across disciplines together to address common problems at multiple levels of analysis. This initiative builds upon existing university strengths but goes far beyond them.</p>
<p>Priority 1: Develop and patent a large scale, representative, and longitudinal data base (Information Bank)</p> <ul style="list-style-type: none"> • Use work on construction and analysis of data in Information Bank as a teaching tool at undergraduate, graduate, and postdoctoral levels
<p>Priority 2: Develop an Institute on Health and Well-being that will oversee the Information Bank</p> <ul style="list-style-type: none"> • Appoint faculty who have expertise working across disciplines and levels of analyses and in one of the three research collaboratives for Health and Wellness, Energy and Environment, and Food Production and Security • Develop and oversee a new, interdisciplinary BS/BA degree in Multi-level Pathways to Health and Well-being

<p>Cyber Enabled Discovery</p> <p>Cyber-enabled discovery is the study of complex natural, human, and technological systems and their interactions through the use of computer modeling and analysis of large data sets. The significant problems of the 21st century are frequently embedded in very complex systems, therefore, understanding the world around us requires a lens through which we view the world, and the primary lens is a model, or an abstract, simplified view of reality.</p>
<p>Priority 1: Establish a CED Network at Ohio State to provide guidance and establish priorities</p> <ul style="list-style-type: none"> • Inventory current programs, talent and support, and to identify possible 1- and 3-year learning, discovery and engagement goals • Convene working groups as prioritized by the Network around identified current faculty interest, for example: Models, Methodology, Simulation; Visual Analytics; Learning Through Discovery; Targeted Data Repositories; and Complex Systems

<ul style="list-style-type: none"> • Make new appointments that include: interdisciplinary research and collaborative partnerships • Build on the strength of The Advanced Computing Center for the Arts and Design (ACCAD) as a critical part of the CED Network
Priority 2: Modify and enhance curricula and establish a climate of learning in CED
<ul style="list-style-type: none"> • Expand current and develop new degree programs/certifications for undergraduate, post-baccalaureate and graduate levels in CED, for example: GIS in Survey Research, Digital Humanities, Visualization and Analysis, etc. • Incorporate into the CED Network semester/year-long programs, seminar series, and short courses about models, methodology and simulation • Develop training opportunities where fundamentals from Mathematics and Statistics are coupled with training in discipline-specific research methods for students, faculty and staff to raise the current campus capacity • Increase opportunities for students to access common massive data sets through virtual learning tools/environments • Develop upper-level undergraduates and graduate student access to the same types of instruments and computational tools faculty use in their research • Establish lecture series to introduce faculty to different perspectives and approaches they could apply to their own complex system research • Organize curricula around complex system themes; actively help students to become skilled in using CED approaches to work with complex problems • Help students apply what they learn through service learning projects focused on complex problems/themes
Priority 3: Invest in and develop targeted data repositories for teaching and research
<ul style="list-style-type: none"> • Focus funding for “working” data (e.g., large amounts of temporary space needed for certain phases of a project) on storage and data management resources that can be repurposed from one project to the next and shared across disciplines • Adopt NSF and other funding agencies data sharing requirements and data management solutions in coordination with the CIC to avoid reinventing the wheel

Decision Sciences and Human Behavior Change

Individual and group decisions alter substantive outcomes such as health behaviors, energy use, water rights and use, and poverty. Yet, at Ohio State and in most universities, research and teaching to address decision making and human behavior change are spread across disparate departments with little overall organization or coordination. Recent efforts at the university to emphasize Behavioral Decision Making (BDM) have provided a core set of researchers and teachers to guide an effort to create an internationally prominent presence for Ohio State in decision science. Further development will make significant contributions to all three of the discovery areas that have been identified for investment in the university’s strategic plan: Health and Wellness, Food Production and Safety; and Energy and Environment.

Priority 1: Establish a comprehensive research center in Decision Sciences and Human Behavior Change at The Ohio State University.

- Appoint faculty and postdoctoral and visiting faculty fellows to work in one or more of the Health & Wellness, Energy and Environment, or Food Production and Security collaboratives. Acquire the requisite space, equipment (including computing, eye-tracking, and physiological recording equipment), and resources (financial incentives for research participants, and personnel for large data collections) to facilitate their research, training, and outreach activities

Priority 2: Develop curricular programs to enhance graduate and undergraduate learning experiences

- Develop undergraduate minor in Decision Sciences to be overseen by the center
- Develop graduate Interdisciplinary Specialization in Decision Sciences

<p>Enhancing the Student Learning Experience</p> <p>The College of Arts and Sciences also recognizes that learning can and should take place outside of the formal classroom and laboratory settings during individualized learning opportunities as well as when working with individuals and groups on- and off-campus. We will significantly expand and enhance high quality learning opportunities for arts and sciences students that include improvements in classroom teaching experiences as well developing quality experiences that go well beyond the traditional undergraduate classroom and laboratory, which we referred to as experiential learning opportunities. Student learning experiences will also be enhanced by the further development of new student programs is also a major goal of many of the other initiatives, by more fully integrating technology into the learning experiences, by improving advising and mentoring of our students, and by developing more team-teaching opportunities for our faculty.</p>
<p>Priority 1: Enhancing Experiential Learning Opportunities.</p> <ul style="list-style-type: none"> • Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities. • Increase internships opportunities for College students by enhancing communication with students about internships opportunities and their intrinsic value, working with Ohio State alumni and friends to develop new internship opportunities that are relevant to arts and sciences students and working with departments to incorporate internship opportunities into curriculum and degree requirements . • Develop service learning opportunities for College students by creating a college structure to coordinate service learning efforts that is closely connected with the OAA's Undergraduate Education office and developing additional service learning opportunities for students. • Develop new study abroad programs designed to take advantage of the May session of the summer term under semesters; Increase scholarship support for study abroad experiences. • Increase undergraduate participation in research by enhancing communication about available research experiences; creating a comprehensive data base regarding available research opportunities; developing additional research opportunities for students; and examining the faculty reward structure for providing undergraduate research opportunities.
<p>Priority 2: E-Learning.</p> <ul style="list-style-type: none"> • Develop college guidelines for the development of on-line courses (whether completely on-line or hybrid) and increase the number of courses that use E-Learning approaches including hybrid and distance course formats. • Provide faculty with resources to develop eLearning approaches and increase technical support for eLearning projects. • Incorporate more interactive tutorials, testing services, and innovative technologies for use in large lecture-type classes to allow faculty to monitor student response, participation, and performance.
<p>Priority 3: Interdisciplinary Team Teaching.</p> <ul style="list-style-type: none"> • Develop college policies that encourage team-teaching and address faculty workload issues, course coordination issues, and faculty evaluation issues and increase support at the department and college level for team teaching and encourage its use.
<p>Priority 4: Advising and Mentoring.</p> <ul style="list-style-type: none"> • Student advising in arts and sciences involves members of the faculty as well as a professional advising staff. We will improve student advising at all levels to enhance our undergraduate student experiences. • Increase faculty participation in advising and mentoring undergraduate students. • Enhance connections between our professional advising staff and faculty and staff in our departments involved in advising activities. • Increase support for academic advising at all levels.
<p>Priority 5: New Program Experiences</p>

- Develop new courses, majors/minors, and programs in support of the other initiatives in this strategic plan, especially those programs that are integrated into the research and scholarship areas to be developed in the strategic plan (see other initiatives).

Environment, Energy and Sustainability

As John P. Holdren, Director of the Office of Science and Technology Policy, put it recently, “Energy is the hardest part of the environment problem; environment is the hardest part of the energy problem, and resolving the energy-economy-environment dilemma is the hardest part of the challenge of sustainable well-being for industrial and developing countries alike.” Ohio State is one of only a handful of academic institutions around the country that has the right mix of capabilities, skills and expertise to fundamentally shift how we approach research and education in this area. The challenges and uncertainties we face provide us with an unprecedented opportunity to build on our existing strengths and to establish Ohio State as a premier institution fostering learning, discovery and outreach at the nexus of environment, energy and sustainability.

Priority 1: Develop a scientific and operational mechanism to (a) identify specific research themes and opportunities as targets for semester or annual focused programs in the area of environment, energy and sustainability; (b) convene relevant university researchers around the current theme to tailor a program of visiting scholars, workshops, short courses, seminars and seed grants; (c) encourage formation research partnerships that will be competitive for external funding; and (d) serve as a nationally recognized center of expertise in this broad area.

- Facilitate visiting scholars, postdoctoral fellows and graduate students; develop short courses, seminars, workshops, working groups, and provide seed grants for newly formed research partnerships
- Develop innovative and flexible undergraduate majors in environment, energy, and sustainability in which students could choose among several different research foci including science/technology; public policy/law; social/behavioral/economic; and health/wellness
- Build on the Environmental Science Graduate Program to integrate the humanities; natural, social and physical sciences; engineering; and business;
- Improve coordination and utilization of existing instructional and laboratory capabilities
- Work with local, regional, and national employers to develop professional degree programs
- Cultivate industry interactions leading to collaborative research, new funding, technology transfer and training opportunities for students

Humanities – The Core Understanding of the Human Condition

We affirm the fundamental significance of the liberal arts in shaping the contexts for discovery and self-discovery, learning, and wise engagement. Research and scholarship in the humanities are indispensable for understanding conceptual foundations, examining normative contexts, and generating fresh insights and approaches in the challenges of social and technological change.

Priority 1: Reinvest in the Humanities Institute to allow the Institute to serve as an incubator

- Support symposia, university dialogue and lecture series such as the proposed “Critical Matters” symposium, “Big Ideas” Network, “Presenting Lives” Initiative

Priority 3: Establish a collaborative and cooperative administrative structure for our language departments that better captures their individual strengths and takes advantage of the physical attributes of Hagerty Hall

- Establish an Advanced Language Institute to engage high ability language students
- Develop a research and teaching cohort that focuses on Second Language Acquisition and Pedagogical studies
- Provide logistical support and informal structures to faculty cohorts who share expertise in a variety of emerging research topics, for example: Translation Studies; Movement Analysis and Documentation; Transnational and Multiethnic Studies Language; Logic, Information, and

Computation Analysis, Study of Shakespeare, Digital Humanities
<ul style="list-style-type: none"> Formalize the college commitment to South Asian Studies through the further development of curriculum, creation of a transparent and flexible administrative structure, and a faculty appointment plan

<p>Integrated Arts, Media & Enterprise</p> <p>We seek to enhance current academic programs, renovate select campus facilities, and through the opportunity to develop new curricular initiatives, establish a clustered and expanded arts neighborhood that identifies 15th and High as “the critical pulse on the cultural corridor and historic gateway to OSU.” The college will establish a prominent arts presence and entryway to the campus along with projects that reach out beyond the campus to demonstrate the active contribution and significance of the arts to the larger community.</p>
<p>Priority 1: Establish an arts neighborhood</p> <ul style="list-style-type: none"> Develop fully the Barnett Center for Integrated Arts & Enterprise Create a new Arts Gallery appropriate to further support the burgeoning and top-ten public visual arts program and top-four design program Establish spaces that house: Moving image production; Music, Media and Enterprise; and Arts Management activities that benefit from overlapping programming Create a moving-image and sound production facility dedicated to multi-media production in order to support film studies and screen-based delivery, instruction, and research across disciplines including a Public Screening Theatre Improve the working relationship with the Wexner Center to include: reduced rates and appropriate access to Mershon Auditorium, access and integration of the Wexner Media Arts exhibition series and Wexner Art and Technology Filmmakers’ Residency Program
<p>Priority 2: Review and enhance curriculum from an integrated perspective</p> <ul style="list-style-type: none"> Align faculty and curricular growth of Music Media and Enterprise, Art and Technology, Music Composition, Moving Image Production, and ACCAD through coordinated space allocation and faculty/staff appointments Develop new programs built off existing strengths, including: Curatorial Studies, Interdisciplinary Professional Practices, Moving Image Production, Writing for the Arts (Grants, Artist Statements, Features, etc.), Arts Analysis and Preservation, Production Analysis and Documentation, Multi-media Minor, Sound, Image production for the Sciences, Research Interpretation, Motion Capture, Games for Social Good, Digital History, Digital Humanities Establish an curriculum across the visual and performing arts that features writing for the arts, grant applications, and the development of artistic statements Scheduling a common block across arts unit level scheduling to enable cross-disciplinary work
<p>Priority 3: Develop creative community partnerships, faculty and staff appointments reflecting the necessary institution support for the visual and performing arts</p> <ul style="list-style-type: none"> Directly link the School of Music Opera Program with the Department of Theatre and formalize programmatic relationships with Opera Columbus, Columbus Symphony Orchestra, and other presenting organizations Increase production support based staffing across arts units to enable cross-disciplinary and inter-disciplinary production efforts Structure a cluster-appointment opportunity for multiple-current units to enhance their own programs and provide a critical-mass of appointments in Moving Image Production

<p>Internationalizing the ASC Curriculum and Programs</p> <p>The College of Arts and Sciences has many faculty members who conduct research and teach in a wide variety of international areas and is home to language instruction on campus. At this time there is a great opportunity to increase our efforts in internationalizing our academic curriculum and programs</p>

<p>across the board so our students can function effectively in our ever-expanding global society. To this end, we will pursue several initiatives that will further expose our students to cultures and experiences outside of this country as well as enhancing our research engagement in areas related to global and international subject matters. Our approach is based on a framework consisting of three overarching rubrics: foreign language instruction; internationalizing curricula and programs (other than language instruction); and providing additional international experiences.</p>
<p>Priority 1: Foreign Language Instruction.</p> <ul style="list-style-type: none"> • Develop an Advanced Language Institute (ALI) as a critical method for integrating language and professional training for a large number of students. ALI seeks to provide quality language training linked to the student's discipline-based skills and include a strong set of supporting activities and programs to link language training to service learning, internships, and career preparation. Among other things, the chief activities of the ALI will be to engage the community outside of Ohio State, build a database of internships at local, national, and international locations and service opportunities, and explore international networking opportunities afforded by the development of Global Gateways and other means • Explore ways to better organize our outstanding language departments to improve the quality and accessibility of language and culture instruction at Ohio State, encourage collaboration between units, and enhance the preparation of our students.
<p>Priority 2: International Curricula and Programs (other than foreign language instruction).</p> <ul style="list-style-type: none"> • Strengthen the existing Undergraduate International Studies Program (UISP) by to simplify the BA and BS tracks, offer academically challenging programs and expand Natural and Mathematical and Arts and Humanities offerings in the IS curriculum, create professional master's degree programs in international studies, encourage the involvement of more fulltime tenure track faculty in the IS program. • Increase the number of faculty interested in international teaching and scholarships by appointing faculty with joint appointments in IS and other relevant academic units across the College including faculty whose teaching and scholarship are in areas of international cultures and literature. • Enhance the university's capacity for international partnerships in instruction and research.
<p>Priority 3: International Experiences</p> <ul style="list-style-type: none"> • Establish an incentive-based funding model for developing new study-abroad courses and experiences. • Develop new study abroad experiences that range from short-term experiences to longer-term intensive experiences and also reflect the diversity of disciplines in the College. • Develop on campus courses that are related and integrated with study abroad experiences.

<p>Literacy, STEM, and Research Interpretation</p> <p>Interest in STEM education reflects concern regarding the extent to which the general public fails to understand university research and lacks the scientific and quantitative literacy to be effective stewards of public policy. We seek to have our students become our best advocates for research as they learn to be well informed and actively informed citizens. As part of our land grant mission, we engage with the wider community to share our research, teaching, and service expertise for the benefit of the public in new and creative ways.</p>
<p>Priority 1: Partner with the College of Education and Human Ecology, to improve the K-12 pipeline of teacher preparation and professional development in STEM Fields</p> <ul style="list-style-type: none"> • Establish a clear and coherent program for students that want to be teachers in STEM fields • Encourage the adoption of research-based best practices in teaching for the ASC courses in the program • Increase "specialized GTA assignments" for students pursuing K-12 licensure • Establish a centralized web directory of STEM teacher professional development opportunities

Priority 2: Improve Resources for STEM Engagement and Research
<ul style="list-style-type: none"> • Establish of a university-wide collaborative structure for STEM outreach
<ul style="list-style-type: none"> • Inventory existing resources and support environment and their current and anticipated needs
<ul style="list-style-type: none"> • Seek effective ways to assess the impact of STEM outreach programs, examining participants' learning, changes in attitude and long-term impact
<ul style="list-style-type: none"> • Develop faculty incentives to enhance the scholarship of teaching and learning, and opportunities for professional development
<ul style="list-style-type: none"> • Share innovated both formative and summative assessment practices across disciplines
Priority 3: Enhance Science and Society and the Curriculum
<ul style="list-style-type: none"> • Facilitate updating of current and development of new undergrad courses and curricula to improve STEM literacy, focusing on multidisciplinary approaches in areas of societal relevancy and public policy
<ul style="list-style-type: none"> • Develop service learning courses that would allow ASC undergraduates intending to enter EHE graduate teaching degree programs to gain experience working with visiting school groups and the general public
<ul style="list-style-type: none"> • Facilitate systemic and continuous improvement of existing GE STEM courses to improve multidisciplinary STEM literacy, STEM learning, and STEM recruitment
<ul style="list-style-type: none"> • Design with teams of faculty from different disciplines across the college interdisciplinary GEC courses addressing pressing world issues
<ul style="list-style-type: none"> • Establish a Teaching Fellow program with ASC to honor and recognize outstanding teaching
<ul style="list-style-type: none"> • Develop a certification in science/research communication
<ul style="list-style-type: none"> • Train undergraduate students to be peer tutors

Measurement and Imaging

Measurement and imaging tools extend our senses and allow us to perceive the world in seemingly miraculous ways: to see an individual star from across the cosmos, to remotely sense the Earth from orbit, to view the interior of a living brain, to manipulate an individual strand of DNA. The experimental use of these tools leads to deeper understanding of fundamental science and to the development of new technology. The skills honed in this cycle of discovery, invention and innovation are essential for the progress of research, the development of new technology and the training of a highly skilled national workforce.

Priority 1: Develop cutting-edge instruments and technology for measurement, imaging and analysis. We will concentrate in four main areas: (1) Informatics, Imaging and Instrumentation (theoretical core program); (2) Measuring the Cosmos from Particles to Galaxies; (3) Measuring a Changing Planet; and (4) Biological, Medical and Materials imaging

- Cluster appointments of faculty in Arts and Sciences departments and complementary departments to grow in these areas
- Enhance training at the graduate and undergraduate levels in advanced instrumentation and in modeling analysis and informatics techniques
- Develop the technical workforce by creating internships for students in measurement and instrumentation technology

Multiscale Science

The frontiers of science are often found at the extremes of length, time or energy. Increasingly, however, new scientific opportunities cross multiple scales and can only be addressed by interdisciplinary teams of researchers. For example, biochemical, molecular, and evolutionary tools and concepts developed within individual biological sub-disciplines are now applied throughout the life sciences. Similarly, the development of new materials for computer and information technology, for batteries and photovoltaics, and for bio-engineering, is one of the foundations for technological innovation in our modern economy. This initiative identifies in two areas of multi-scale science -

biological and materials research – where Ohio State has existing strengths and the economic potential is significant.
Priority 1: Connecting genes to the biosphere. This initiative will be anchored by two growing university initiatives: the Center for RNA Biology (CRB) and the Center for Biodiversity Research and Analysis (CEBRA).
<ul style="list-style-type: none"> • Appoint faculty in Arts and Sciences departments and complementary departments in other colleges to grow CRB and CEBRA
<ul style="list-style-type: none"> • Develop new initiatives and centers of excellence that interpolate between CRB and CEBRA, for example a Center for Structural Biology that focuses on the structure of membranes and other cellular structures
<ul style="list-style-type: none"> • Deliver a comprehensive teaching, training and internship programs for students and postdoctoral scholars; including experience from the field to the laboratory and a significant international component
Priority 2: From molecules to materials to markets.
<ul style="list-style-type: none"> • Cluster appointments of faculty in Arts and Sciences departments and complementary departments to grow in these areas
<ul style="list-style-type: none"> • Develop opportunities for incorporating interdisciplinary training in the undergraduate curriculum, ranging from research opportunities, to technical electives across disciplines to the development of explicitly interdisciplinary course offerings
<ul style="list-style-type: none"> • Create an Institute for Science, Innovation and Society (ISIS) focused on work-force development, entrepreneurship, job creation, and impact of science and technology on society. The mission of ISIS is (1) Transformational learning that draws students with interests in business and policy to STEM fields and enhances business awareness among students in STEM fields via a new Ohio State Entrepreneurship Institute; (2) Cutting-edge scholarly research on science to inform policy; (3) Assessing the social, medical, technological and economic impacts of research

<p>Urban Studies</p> <p>Urban areas are clearly fundamental to the economy of the state as points of innovation and development, but also through their activities and their connections to urban areas across the nation and the world, and to our analysis and understanding of the broader process of economic and political development. The Ohio State University is one of very few institutions within the CIC that is located in an urban setting. Development of comprehensive programming in Urban studies has the potential to advance research and teaching collaboratives around (a) urban resource and population disparities as they relate to health and wellbeing, (b) energy cost, use, and environmental impact; and (c) urbanization of populations with distinctive, changing, and interdependent economic, cultural, and historical outcomes and social geographies.</p>
Priority 1: Establish an administrative structure and appoint a director to develop and oversee the research, curricular, and outreach activities of a comprehensive Urban Studies Initiative
<ul style="list-style-type: none"> • Establish interdisciplinary, undergraduate major and minor programs in Urban Studies that would encourage students to examine urbanization and the many issues inherent in urban life, including historical, social, cultural, economic, and political phenomena and that would include robust service-learning and internship experiences
<ul style="list-style-type: none"> • Assure an adequate outreach and engagement presence (e.g., a portal through which community leaders could bring their questions and concerns to Ohio State) given the many opportunities to partner with the greater Columbus community

Research and Innovation

Create distinctive and internationally recognized contributions to the advancement of fundamental knowledge and scholarship and to the solutions of the world’s most pressing problems.

Biological, Psychological and Social Pathways to Health and Well-being

Ohio State researchers in the Arts and Sciences have been involved in studying the biological, psychological, and social pathways to health and wellbeing from either the micro-level study of individual health determinants (genetic, neural, biochemical, personality and cognitive mechanisms) and treatment outcomes *or* the macro-level study of health across various populations (men, women, African Americans, immigrants, elderly, poorer populations). Truly transformative discoveries that fundamentally alter our understanding require new tools and data analytic techniques, and large, representative, and longitudinal data sets; they also require structures and programming that bring researchers from across disciplines together to address common problems at multiple levels of analysis. This initiative builds upon existing university strengths but goes far beyond them.

Priority 1: Develop and patent a large scale, representative, and longitudinal data base (Information Bank)

- Develop sampling methods for target populations; identify key markers (including, but not limited to genetic and epigenetic analyses, brain images (EEG, MRI, fMRI, DTI), hormonal levels, assessments of cognitive and perceptual functioning, personality characteristics, social, emotional, and behavioral patterns or styles, environmental factors, speech recordings and acoustic assessments, demographic, SES, lifestyle status) and critical health and wellbeing outcomes; design and construct database that extends data collection over multiple waves, generating ongoing multilevel data resources that can be amended to include new data/foci in order to be responsive to opportunities for research collaborations across disciplines; development and dissemination of tools and data analytic techniques that will permit hypothesis testing across levels of analysis

Priority 2: Develop an Institute on Health and Well-being that will oversee the Information Bank

- Establish three new research groups across campus that will be administratively housed under the Institute. These three research collaboratives will focus on (a) the Biological, Psychological, and Social Causes, Consequences, and Promotion of Health Behaviors; (b) Multi-level Analyses of Stress and Health; and (c) Pathways to Health and Well-being across the Lifespan
- Appoint faculty who have expertise working across disciplines and levels of analyses and in one of the three research collaboratives identified above

Cyber Enabled Discovery

Cyber-enabled discovery is the study of complex natural, human, and technological systems and their interactions through the use of computer modeling and analysis of large data sets. The significant problems of the 21st century are frequently embedded in very complex systems, therefore, understanding the world around us requires a lens through which we view the world, and the primary lens is a model, or an abstract, simplified view of reality.

Priority 1: Establish a CED Network at Ohio State to provide guidance and establish priorities

- Inventory current programs, talent and support, and to identify possible 1- and 3-year learning, discovery and engagement goals
- Convene working groups as prioritized by the Network around identified current faculty interest, for example: Models, Methodology, Simulation; Visual Analytics; Learning Through Discovery; Targeted Data Repositories; and Complex Systems
- Make new appointments that include: interdisciplinary research and collaborative partnerships
- Create a “virtual collaboratory” to get different areas more engaged with each other and to facilitate

sustained real-time collaboration among geographically and organizationally distributed teams
<ul style="list-style-type: none"> • Increase funding from external agencies and commercial enterprises • Build on the strength of The Advanced Computing Center for the Arts and Design (ACCAD) as a critical part of the CED Network
Priority 2: Modify and enhance curricula and establish a climate of learning in CED
<ul style="list-style-type: none"> • Increase opportunities for students to access common massive data sets through virtual learning tools/environments • Develop upper-level undergraduates and graduate student access to the same types of instruments and computational tools faculty use in their research • Establish lecture series to introduce faculty to different perspectives and approaches they could apply to their own complex system research • Help students apply what they learn through service learning projects focused on complex problems/themes
Priority 3: Invest in and develop targeted data repositories for teaching and research
<ul style="list-style-type: none"> • Focus funding for “working” data (e.g., large amounts of temporary space needed for certain phases of a project) on storage and data management resources that can be repurposed from one project to the next and shared across disciplines • Adopt NSF and other funding agencies data sharing requirements and data management solutions in coordination with the CIC to avoid reinventing the wheel • Link a specific plan for data collection and management to each of the strategic plan discovery themes • Collect data to create large numbers of data points through inexpensive devices attached to student, faculty, and staff smart phones

Decision Sciences and Human Behavior Change

Individual and group decisions alter substantive outcomes such as health behaviors, energy use, water rights and use, and poverty. Yet, at Ohio State and in most universities, research and teaching to address decision making and human behavior change are spread across disparate departments with little overall organization or coordination. Recent efforts at the university to emphasize Behavioral Decision Making (BDM) have provided a core set of researchers and teachers to guide an effort to create an internationally prominent presence for Ohio State in decision science. Further development will make significant contributions to all three of the discovery areas that have been identified for investment in the university’s strategic plan: Health and Wellness, Food Production and Safety; and Energy and Environment.

Priority 1: Establish a comprehensive research center in Decision Sciences and Human Behavior Change at The Ohio State University.

- Develop research collaboratives that promote work on Foundational Approaches to investigating human reasoning and decision-making (i.e., the descriptive, the process-oriented, the normative/rational, and the prescriptive approaches to decision making) and applications to the university’s discovery themes of (a) Energy and Environment, (b) Health and Wellness, and (c) Food Security and Production
- Appoint faculty and postdoctoral and visiting faculty fellows to work in one or more of the above-described research collaboratives. Acquire the requisite space, equipment (including computing, eye-tracking, and physiological recording equipment), and resources (financial incentives for research participants, and personnel for large data collections) to facilitate their research, training, and outreach activities

Enhancing the Student Learning Experience

The College of Arts and Sciences also recognizes that learning can and should take place outside of the formal classroom and laboratory settings during individualized learning opportunities as well as when

working with individuals and groups on- and off-campus. We will significantly expand and enhance high quality learning opportunities for arts and sciences students that include improvements in classroom teaching experiences as well developing quality experiences that go well beyond the traditional undergraduate classroom and laboratory, which we referred to as experiential learning opportunities. Student learning experiences will also be enhanced by the further development of new student programs is also a major goal of many of the other initiatives, by more fully integrating technology into the learning experiences, by improving advising and mentoring of our students, and by developing more team-teaching opportunities for our faculty.

Priority 1: Enhancing Experiential Learning Opportunities.

- Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities.
- Increase undergraduate participation in research by enhancing communication with about available research experiences; creating of a comprehensive data base regarding available research opportunities; developing additional research opportunities for students; and examining the faculty reward structure for providing undergraduate research opportunities.

Environment, Energy and Sustainability

As John P. Holdren, Director of the Office of Science and Technology Policy, put it recently, “Energy is the hardest part of the environment problem; environment is the hardest part of the energy problem, and resolving the energy-economy-environment dilemma is the hardest part of the challenge of sustainable well-being for industrial and developing countries alike.” Ohio State is one of only a handful of academic institutions around the country that has the right mix of capabilities, skills and expertise to fundamentally shift how we approach research and education in this area. The challenges and uncertainties we face provide us with an unprecedented opportunity to build on our existing strengths and to establish Ohio State as a premier institution fostering learning, discovery and outreach at the nexus of environment, energy and sustainability.

Priority 1: Develop a scientific and operational mechanism to (a) identify specific research themes and opportunities as targets for semester or annual focused programs in the area of environment, energy and sustainability; (b) convene relevant university researchers around the current theme to tailor a program of visiting scholars, workshops, short courses, seminars and seed grants; (c) encourage formation research partnerships that will be competitive for external funding; and (d) serve as a nationally recognized center of expertise in this broad area.

- Possible thematic years include (1) Subsurface energy exploration and exploitation; (2) Alternative energy generation and storage; (3) Environmental policy, law and ethics; mediating environmental conflict; (4) Water and Climate: climate change; sustainable water supply; human dimensions of natural resource use; (5) Biological, ecological and agricultural resources response to changing environments; (6) Predictive models and quantification of uncertainty
- Facilitate visiting scholars, postdoctoral fellows and graduate students; develop short courses, seminars, workshops, working groups, and provide seed grants for newly formed research partnerships
- Improve coordination and utilization of existing instructional and laboratory capabilities
- Develop new state-of-the-art research capabilities specifically targeting needs of researchers in environment, energy and sustainability

Humanities – The Core Understanding of the Human Condition

We affirm the fundamental significance of the liberal arts in shaping the contexts for discovery and self-discovery, learning, and wise engagement. Research and scholarship in the humanities are indispensable for understanding conceptual foundations, examining normative contexts, and generating fresh insights and approaches in the challenges of social and technological change.

Priority 1: Reinvest in the Humanities Institute to allow the Institute to serve as an incubator
<ul style="list-style-type: none"> • Fund a Faculty fellows program providing opportunities from within the faculty or from other universities, and post-doctoral fellows • Support symposia, university dialogue and lecture series such as the proposed “Critical Matters” symposium, “Big Ideas” Network, “Presenting Lives” Initiative
Priority 2: Establish a Center for Ethics and Human Values based on the efforts of the current Innovation Group
<ul style="list-style-type: none"> • Confirm and fund the leadership for the center to include: a founding director, associate director and GTA support
Priority 3: Establish a collaborative and cooperative administrative structure for our language departments that better captures their individual strengths and takes advantage of the physical attributes of Hagerty Hall
<ul style="list-style-type: none"> • Establish an Advanced Language Institute to engage high ability language students • Develop a research and teaching cohort that focuses on Second Language Acquisition and Pedagogical studies • Formalize the curricular publication efforts of our Foreign Language Center to serve multiple disciplines • Provide logistical support and informal structures to faculty cohorts who share expertise in a variety of emerging research topics, for example: Translation Studies; Movement Analysis and Documentation; Transnational and Multiethnic Studies Language; Logic, Information, and Computation Analysis, Study of Shakespeare, Digital Humanities • Formalize the college commitment to South Asian Studies through the further development of curriculum, creation of a transparent and flexible administrative structure, and a faculty appointment plan • Establish policies, fiscal support, and physical locations for journal efforts across the multiple arts and humanities disciplines • Encourage wide-spread use of Research in View to establish a faculty expertise database for community engagement

Integrated Arts, Media & Enterprise

We seek to enhance current academic programs, renovate select campus facilities, and through the opportunity to develop new curricular initiatives, establish a clustered and expanded arts neighborhood that identifies 15th and High as “the critical pulse on the cultural corridor and historic gateway to OSU.” The college will establish a prominent arts presence and entryway to the campus along with projects that reach out beyond the campus to demonstrate the active contribution and significance of the arts to the larger community.

Priority 1: Establish an arts neighborhood
<ul style="list-style-type: none"> • Develop fully the Barnett Center for Integrated Arts & Enterprise • Create a new Arts Gallery appropriate to further support the burgeoning and top-ten public visual arts program and top-four design program • Establish spaces that house: Moving image production; Music, Media and Enterprise; and Arts Management activities that benefit from overlapping programming • Create a moving-image and sound production facility dedicated to multi-media production in order to support film studies and screen-based delivery, instruction, and research across disciplines including a Public Screening Theatre • Invite appropriate non-ASC units to collaborate on the design, use and polices of proposed facility
Priority 2: Review and enhance curriculum from an integrated perspective
<ul style="list-style-type: none"> • Align faculty and curricular growth of Music Media and Enterprise, Art and Technology, Music Composition, Moving Image Production, and ACCAD through coordinated space allocation and faculty/staff appoints

<ul style="list-style-type: none"> • Develop new programs built off existing strengths, including: Curatorial Studies, Interdisciplinary Professional Practices, Moving Image Production, Writing for the Arts (Grants, Artist Statements, Features, etc.), Arts Analysis and Preservation, Production Analysis and Documentation, Multi-media Minor, Sound, Image production for the Sciences, Research Interpretation, Motion Capture, Games for Social Good, Digital History, Digital Humanities
<ul style="list-style-type: none"> • Establish an curriculum across the visual and performing arts that features writing for the arts, grant applications, and the development of artistic statements
<ul style="list-style-type: none"> • Scheduling a common block across arts unit level scheduling to enable cross-disciplinary work
<p>Priority 3: Develop creative community partnerships, faculty and staff appoints reflecting the necessary institution support for the visual and performing arts</p>
<ul style="list-style-type: none"> • Directly link the School of Music Opera Program with the Department of Theatre and formalize programmatic relationships with Opera Columbus, Columbus Symphony Orchestra, and other presenting organizations
<ul style="list-style-type: none"> • Structure a cluster-appoint opportunity for multiple-current units to enhance their own programs and provide a critical-mass of appoints in Moving Image Production

<p>Internationalizing the ASC Curriculum and Programs</p> <p>The College of Arts and Sciences has many faculty members who conduct research and teach in a wide variety of international areas and is home to language instruction on campus. At this time there is a great opportunity to increase our efforts in internationalizing our academic curriculum and programs across the board so our students can function effectively in our ever-expanding global society. To this end, we will pursue several initiatives that will further expose our students to cultures and experiences outside of this country as well as enhancing our research engagement in areas related to global and international subject matters. Our approach is based on a framework consisting of three overarching rubrics: foreign language instruction; internationalizing curricula and programs (other than language instruction); and providing additional international experiences.</p>
<p>Priority 2: International Curricula and Programs (other than foreign language instruction).</p>
<ul style="list-style-type: none"> • Strengthen the existing Undergraduate International Studies Program (UISP) by to simplify the BA and BS tracks, offer academically challenging programs and expand Natural and Mathematical and Arts and Humanities offerings in the IS curriculum, create professional master’s degree programs in international studies, encourage the involvement of more fulltime tenure track faculty in the IS program.
<ul style="list-style-type: none"> • Increase the number of faculty interested in international teaching and scholarships by appoint faculty with joint appointments in IS and other relevant academic units across the College including faculty whose teaching and scholarship are in areas of international cultures and literature.
<ul style="list-style-type: none"> • Enhance the university’s capacity for international partnerships in instruction and research.

<p>Literacy, STEM, and Research Interpretation</p> <p>Interest in STEM education reflects concern regarding the extent to which the general public fails to understand university research and lacks the scientific and quantitative literacy to be effective stewards of public policy. We seek to have our students become our best advocates for research as they learn to be well informed and actively informed citizens. As part of our land grant mission, we engage with the wider community to share our research, teaching, and service expertise for the benefit of the public in new and creative ways.</p>
<p>Priority 1: Partner with the College of Education and Human Ecology, to improve the K-12 pipeline of teacher preparation and professional development in STEM Fields</p>
<p>Priority 2: Improve Resources for STEM Engagement and Research</p>
<ul style="list-style-type: none"> • Inventory existing resources and support environment and their current and anticipated needs
<ul style="list-style-type: none"> • Seek effective ways to assess the impact of STEM outreach programs, examining participants’

learning, changes in attitude and long-term impact
<ul style="list-style-type: none"> • Share innovated both formative and summative assessment practices across disciplines

<p>Measurement and Imaging</p> <p>Measurement and imaging tools extend our senses and allow us to perceive the world in seemingly miraculous ways: to see an individual star from across the cosmos, to remotely sense the Earth from orbit, to view the interior of a living brain, to manipulate an individual strand of DNA. The experimental use of these tools leads to deeper understanding of fundamental science and to the development of new technology. The skills honed in this cycle of discovery, invention and innovation are essential for the progress of research, the development of new technology and the training of a highly skilled national workforce.</p>
<p>Priority 1: Develop cutting-edge instruments and technology for measurement, imaging and analysis. We will concentrate in four main areas: (1) Informatics, Imaging and Instrumentation (theoretical core program); (2) Measuring the Cosmos from Particles to Galaxies; (3) measuring a changing Planet; and (4) Biological, Medical and Materials Imaging</p>
<ul style="list-style-type: none"> • Cluster appointments of faculty in Arts and Sciences departments and complementary departments to grow in these areas
<ul style="list-style-type: none"> • Develop world-class, campus-wide core facilities for bioinformatics and deep sequencing; for proteomics and metabolomics; for structural biology and materials research, and others
<ul style="list-style-type: none"> • Enhance training at the graduate and undergraduate levels in advanced instrumentation and in modeling, analysis and informatics techniques
<ul style="list-style-type: none"> • Connect different groups on campus engaged in developing new instrumentation to share expertise and infrastructure
<ul style="list-style-type: none"> • Leverage existing strengths to develop new remote sensing capabilities and novel microscopies, spectroscopies, and sensors
<ul style="list-style-type: none"> • Create gateway for Ohio industries to advanced instrumentation and expertise available on campus, including partnerships that enhance instrument development

<p>Multiscale Science</p> <p>The frontiers of science are often found at the extremes of length, time or energy. Increasingly, however, new scientific opportunities cross multiple scales and can only be addressed by interdisciplinary teams of researchers. For example, biochemical, molecular, and evolutionary tools and concepts developed within individual biological sub-disciplines are now applied throughout the life sciences. Similarly, the development of new materials for computer and information technology, for batteries and photovoltaics, and for bio-engineering, is one of the foundations for technological innovation in our modern economy. This initiative identifies in two areas of multi-scale science - biological and materials research - where Ohio State has existing strengths and the economic potential is significant.</p>
<p>Priority 1: Connecting genes to the biosphere. This initiative will be anchored by two growing university initiatives: the Center for RNA Biology (CRB) and the Center for Biodiversity Research and Analysis (CEBRA).</p>
<ul style="list-style-type: none"> • Appoint faculty in Arts and Sciences departments and complementary departments in other colleges to grow CRB and CEBRA
<ul style="list-style-type: none"> • Develop new initiatives and centers of excellence that interpolate between CRB and CEBRA, for example a Center for Structural Biology that focuses on the structure of membranes and other cellular structures
<ul style="list-style-type: none"> • Increase investment in genomics and bioinformatics personnel, equipment and infrastructure - the research capacity needed to bridge scales across all the biological sciences
<p>Priority 2: From molecules to materials to markets.</p>
<ul style="list-style-type: none"> • Cluster appointment of faculty in Arts and Sciences departments and complementary departments

to grow in these areas
<ul style="list-style-type: none"> Foster cutting edge research and interdisciplinary collaboration by strategic investment in developing and maintaining world-class research infrastructure
<ul style="list-style-type: none"> Create an Institute for Science, Innovation and Society (ISIS) focused on work-force development, entrepreneurship, job creation, and impact of science and technology on society. The mission of ISIS is (1) Transformational learning that draws students with interests in business and policy to STEM fields and enhances business awareness among students in STEM fields via a new Ohio State Entrepreneurship Institute; (2) Cutting-edge scholarly research on science to inform policy; (3) Assessing the social, medical, technological and economic impacts of research

<p>Urban Studies</p> <p>Urban areas are clearly fundamental to the economy of the state as points of innovation and development, but also through their activities and their connections to urban areas across the nation and the world, and to our analysis and understanding of the broader process of economic and political development. The Ohio State University is one of very few institutions within the CIC that is located in an urban setting. Development of comprehensive programming in Urban studies has the potential to advance research and teaching collaboratives around (a) urban resource and population disparities as they relate to health and wellbeing, (b) energy cost, use, and environmental impact; and (c) urbanization of populations with distinctive, changing, and interdependent economic, cultural, and historical outcomes and social geographies.</p>
<p>Priority 1: Establish an administrative structure and appoint a director to develop and oversee the research, curricular, and outreach activities of a comprehensive Urban Studies Initiative</p>
<ul style="list-style-type: none"> Establish interdisciplinary research collaboratives around three themes: (a) Urban Disparities and well-being, including a focus on disparities in experience and access to resources such as schools, housing markets, financial institutions, medical access, cultural institutions, workplaces; (b) Urban Innovation and Development, including a focus on economic, political, and cultural advancement, and intellectual innovation; and (c) Mobility, Migration, and Social Networks, with a focus on the interconnectedness of people, groups and structures
<ul style="list-style-type: none"> Assure an adequate outreach and engagement presence (e.g., a portal through which community leaders could bring their questions and concerns to Ohio State) given the many opportunities to partner with the greater Columbus community

Outreach and Engagement

Establish mutually beneficial partnerships with the citizens and institutions of Ohio, the nation, and the world so that our communities are actively engaged in the exciting work of The Ohio State University.

Biological, Psychological and Social Pathways to Health and Well-being

Ohio State researchers in the Arts and Sciences have been involved in studying the biological, psychological, and social pathways to health and wellbeing from either the micro-level study of individual health determinants (genetic, neural, biochemical, personality and cognitive mechanisms) and treatment outcomes *or* the macro-level study of health across various populations (men, women, African Americans, immigrants, elderly, poorer populations). Truly transformative discoveries that fundamentally alter our understanding require new tools and data analytic techniques, and large, representative, and longitudinal data sets; they also require structures and programming that bring researchers from across disciplines together to address common problems at multiple levels of analysis. This initiative builds upon existing university strengths but goes far beyond them.

Priority 1: Develop and patent a large scale, representative, and longitudinal data base (Information Bank)

- Market data base to scientific and business partners in Ohio and at national and international levels.

Priority 2: Develop an Institute on Health and Well-being that will oversee the Information Bank

- Develop and strengthen initiatives to translate the fundamental science done in Institute Fellows' laboratories to the public in a way that is understandable, promotes behavior change, and informs public discourse and health policy

Cyber Enabled Discovery

Cyber-enabled discovery is the study of complex natural, human, and technological systems and their interactions through the use of computer modeling and analysis of large data sets. The significant problems of the 21st century are frequently embedded in very complex systems, therefore, understanding the world around us requires a lens through which we view the world, and the primary lens is a model, or an abstract, simplified view of reality.

Priority 1: Establish a CED Network at Ohio State to provide guidance and establish priorities

- Increase funding from external agencies and commercial enterprises
- Build on the strength of The Advanced Computing Center for the Arts and Design (ACCAD) as a critical part of the CED Network

Priority 2: Modify and enhance curricula and establish a climate of learning in CED

- Expand current and develop new degree programs/certifications for undergraduate, post-baccalaureate and graduate levels in CED, for example: GIS in Survey Research, Digital Humanities, Visualization and Analysis, etc.
- Incorporate into the CED Network semester/year-long programs, seminar series, and short courses about models, methodology and simulation
- Develop training opportunities where fundamentals from Mathematics and Statistics are coupled with training in discipline-specific research methods for students, faculty and staff to raise the current campus capacity
- Establish lecture series to introduce faculty to different perspectives and approaches they could apply to their own complex system research
- Help students apply what they learn through service learning projects focused on complex problems/themes

Priority 3: Invest in and develop targeted data repositories for teaching and research

- Adopt NSF and other funding agencies data sharing requirements and data management solutions in coordination with the CIC to avoid reinventing the wheel

- Collect data to create large numbers of data points through inexpensive devices attached to student, faculty, and staff smart phones

Decision Sciences and Human Behavior Change

Individual and group decisions alter substantive outcomes such as health behaviors, energy use, water rights and use, and poverty. Yet, at Ohio State and in most universities, research and teaching to address decision making and human behavior change are spread across disparate departments with little overall organization or coordination. Recent efforts at the university to emphasize Behavioral Decision Making (BDM) have provided a core set of researchers and teachers to guide an effort to create an internationally prominent presence for Ohio State in decision science. Further development will make significant contributions to all three of the discovery areas that have been identified for investment in the university’s strategic plan: Health and Wellness, Food Production and Safety; and Energy and Environment.

Priority 1: Establish a comprehensive research center in Decision Sciences and Human Behavior Change at The Ohio State University.

- Develop an information portal through which media, decision makers, and the public can learn about the research and policy implications/applications of the university’s Decision sciences researchers. The ultimate goal would be to translate the fundamental and applied science conducted under the umbrella of the center to the public in such a way that is understandable, promotes behavior change, and informs public discourse and policy

Enhancing the Student Learning Experience

The College of Arts and Sciences also recognizes that learning can and should take place outside of the formal classroom and laboratory settings during individualized learning opportunities as well as when working with individuals and groups on- and off-campus. We will significantly expand and enhance high quality learning opportunities for arts and sciences students that include improvements in classroom teaching experiences as well developing quality experiences that go well beyond the traditional undergraduate classroom and laboratory, which we referred to as experiential learning opportunities. Student learning experiences will also be enhanced by the further development of new student programs is also a major goal of many of the other initiatives, by more fully integrating technology into the learning experiences, by improving advising and mentoring of our students, and by developing more team-teaching opportunities for our faculty.

Priority 1: Enhancing Experiential Learning Opportunities.

- Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities.
- Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities.
- Increase internships opportunities for College students by enhancing communication with students about internships opportunities and their intrinsic value, working with Ohio State alumni and friends to develop new internship opportunities that are relevant to arts and sciences students and working with departments to incorporate internship opportunities into curriculum and degree requirements.
- Develop service learning opportunities for College students by creating a college structure to coordinate service learning efforts that is closely connected with the OAA’s Undergraduate Education office and developing additional service learning opportunities for students.

Environment, Energy and Sustainability

As John P. Holdren, Director of the Office of Science and Technology Policy, put it recently, “Energy is the hardest part of the environment problem; environment is the hardest part of the energy problem, and resolving the energy-economy-environment dilemma is the hardest part of the challenge of sustainable well-being for industrial and developing countries alike.” Ohio State is one of only a handful of academic institutions around the country that has the right mix of capabilities, skills and expertise to fundamentally shift how we approach research and education in this area. The challenges and uncertainties we face provide us with an unprecedented opportunity to build on our existing strengths and to establish Ohio State as a premier institution fostering learning, discovery and outreach at the nexus of environment, energy and sustainability.

Priority 1: Develop a scientific and operational mechanism to (a) identify specific research themes and opportunities as targets for semester or annual focused programs in the area of environment, energy and sustainability; (b) convene relevant university researchers around the current theme to tailor a program of visiting scholars, workshops, short courses, seminars and seed grants; (c) encourage formation research partnerships that will be competitive for external funding; and (d) serve as a nationally recognized center of expertise in this broad area.

- Work with local, regional, and national employers to develop professional degree programs
- Cultivate industry interactions leading to collaborative research, new funding, technology transfer and training opportunities for students
- Communication and dissemination of research to policy makers; resources managers, state government agencies; K-12, and the general public

Humanities – The Core Understanding of the Human Condition

We affirm the fundamental significance of the liberal arts in shaping the contexts for discovery and self-discovery, learning, and wise engagement. Research and scholarship in the humanities are indispensable for understanding conceptual foundations, examining normative contexts, and generating fresh insights and approaches in the challenges of social and technological change.

Priority 1: Reinvest in the Humanities Institute to allow the Institute to serve as an incubator

- Appoint a new director for the Institute
- Fund a Faculty fellows program providing opportunities from within the faculty or from other universities, and post-doctoral fellows
- Provide the Institute with administrative assistance to develop an NEH Challenge Grant, and facilitate other grant proposals such as the NEH Collaborative Grants
- Support symposia, university dialogue and lecture series such as the proposed “Critical Matters” symposium, “Big Ideas” Network, “Presenting Lives” Initiative

Priority 2: Establish a Center for Ethics and Human Values based on the efforts of the current Innovation Group

- Confirm and fund the leadership for the center to include: a founding director, associate director and GTA support
- Assign base level funding that supports an Annual Conference, Lecture Series, and annual COMPAS (Conversations on Morality, Politics, and Society) thematic project that extends across campus. COMPAS should be an annual, coordinated effort across many disciplines

Priority 3: Establish a collaborative and cooperative administrative structure for our language departments that better captures their individual strengths and takes advantage of the physical attributes of Hagerty Hall

- Formalize the curricular publication efforts of our Foreign Language Center to serve multiple disciplines
- Formalize the college commitment to South Asian Studies through the further development of curriculum, creation of a transparent and flexible administrative structure, and a faculty appointment plan

<ul style="list-style-type: none"> • Establish policies, fiscal support, and physical locations for journal efforts across the multiple arts and humanities disciplines
<ul style="list-style-type: none"> • Encourage wide-spread use of Research in View to establish a faculty expertise database for community engagement
<ul style="list-style-type: none"> • Develop a national publicity campaign to highlight the research/creative activity impact of our faculty including intentionally nominating faculty for appropriate national /international awards
<ul style="list-style-type: none"> • Create more donor study experiences like History’s WWII course model to expose the work of our faculty and increase funding sources

Integrated Arts, Media & Enterprise
 We seek to enhance current academic programs, renovate select campus facilities, and through the opportunity to develop new curricular initiatives, establish a clustered and expanded arts neighborhood that identifies 15th and High as “the critical pulse on the cultural corridor and historic gateway to OSU.” The college will establish a prominent arts presence and entryway to the campus along with projects that reach out beyond the campus to demonstrate the active contribution and significance of the arts to the larger community.

Priority 1: Establish an arts neighborhood

- Develop fully the Barnett Center for Integrated Arts & Enterprise
- Create a new Arts Gallery appropriate to further support the burgeoning and top-ten public visual arts program and top-four design program
- Create a moving-image and sound production facility dedicated to multi-media production in order to support film studies and screen-based delivery, instruction, and research across disciplines including a Public Screening Theatre
- Invite appropriate non-ASC units to collaborate on the design, use and polices of proposed facility
- Improve the working relationship with the Wexner Center to include: reduced rates and appropriate access to Mershon Auditorium, access and integration of the Wexner Media Arts exhibition series and Wexner Art and Technology Filmmakers’ Residency Program
- Develop a master plan for projected siting and funding for the relocation of theatre from Drake to the arts neighborhood

Priority 2: Review and enhance curriculum from an integrated perspective

- Align faculty and curricular growth of Music Media and Enterprise, Art and Technology, Music Composition, Moving Image Production, and ACCAD through coordinated space allocation and faculty/staff appointments
- Develop new programs built off existing strengths, including: Curatorial Studies, Interdisciplinary Professional Practices, Moving Image Production, Writing for the Arts (Grants, Artist Statements, Features, etc.), Arts Analysis and Preservation, Production Analysis and Documentation, Multi-media Minor, Sound, Image production for the Sciences, Research Interpretation, Motion Capture, Games for Social Good, Digital History, Digital Humanities
- Scheduling a common block across arts unit level scheduling to enable cross-disciplinary work
- Form and formalize “The Lantern Media Group,” to include the *Lantern* newspaper, *Lantern* “On-Line” and Buckeye TV closed circuit television

Priority 3: Develop creative community partnerships, faculty and staff appointments reflecting the necessary institution support for the visual and performing arts

- Directly link the School of Music Opera Program with the Department of Theatre and formalize programmatic relationships with Opera Columbus, Columbus Symphony Orchestra, and other presenting organizations
- Increase production support based staffing across arts units to enable cross-disciplinary and inter-disciplinary production efforts
- Consolidate Gallery management and support staffing under the college
- Coordinate performances and presenting schedules with CAPA

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| <ul style="list-style-type: none"> • Establish an Arts Extension Specialist |
| <ul style="list-style-type: none"> • Structure a cluster-appointment opportunity for multiple-current units to enhance their own programs and provide a critical-mass of appointments in Moving Image Production |
| <ul style="list-style-type: none"> • Partner with WOSU-Public Media for student opportunities |

Internationalizing the ASC Curriculum and Programs

The College of Arts and Sciences has many faculty members who conduct research and teach in a wide variety of international areas and is home to language instruction on campus. At this time there is a great opportunity to increase our efforts in internationalizing our academic curriculum and programs across the board so our students can function effectively in our ever-expanding global society. To this end, we will pursue several initiatives that will further expose our students to cultures and experiences outside of this country as well as enhancing our research engagement in areas related to global and international subject matters. Our approach is based on a framework consisting of three overarching rubrics: foreign language instruction; internationalizing curricula and programs (other than language instruction); and providing additional international experiences.

Priority 1: Foreign Language Instruction.

- Develop an Advanced Language Institute (ALI) as a critical method for integrating language and professional training for a large number of students. ALI seeks to provide quality language training linked to the student's discipline-based skills and include a strong set of supporting activities and programs to link language training to service learning, internships, and career preparation. Among other things, the chief activities of the ALI will be to engage the community outside of Ohio State, build a database of internships at local, national, and international locations and service opportunities, and explore international networking opportunities afforded by the development of Global Gateways and other means

Priority 2: International Curricula and Programs (other than foreign language instruction).

- Enhance the university's capacity for international partnerships in instruction and research.

Literacy, STEM, and Research Interpretation

Interest in STEM education reflects concern regarding the extent to which the general public fails to understand university research and lacks the scientific and quantitative literacy to be effective stewards of public policy. We seek to have our students become our best advocates for research as they learn to be well informed and actively informed citizens. As part of our land grant mission, we engage with the wider community to share our research, teaching, and service expertise for the benefit of the public in new and creative ways.

Priority 1: Partner with the College of Education and Human Ecology, to improve the K-12 pipeline of teacher preparation and professional development in STEM Fields

- Establish a clear and coherent program for students that want to be teachers in STEM fields
- Develop a certificate program for in-service teachers
- Establish a centralized web directory of STEM teacher professional development opportunities

Priority 2: Improve Resources for STEM Engagement and Research

- Inventory existing resources and support environment and their current and anticipated needs
- Enhance of the stemoutreach.osu.edu website to publicize STEM outreach efforts
- Share innovated both formative and summative assessment practices across disciplines
- Develop resources and short term assistance in developing Multi-media methods for sharing more widely research discoveries

Priority 3: Enhance Science and Society and the Curriculum

- Develop service learning courses that would allow ASC undergraduates intending to enter EHE graduate teaching degree programs to gain experience working with visiting school groups and the general public

- Train undergraduate students to be peer tutors

Measurement and Imaging

Measurement and imaging tools extend our senses and allow us to perceive the world in seemingly miraculous ways: to see an individual star from across the cosmos, to remotely sense the Earth from orbit, to view the interior of a living brain, to manipulate an individual strand of DNA. The experimental use of these tools leads to deeper understanding of fundamental science and to the development of new technology. The skills honed in this cycle of discovery, invention and innovation are essential for the progress of research, the development of new technology and the training of a highly skilled national workforce.

Priority 1: Develop cutting-edge instruments and technology for measurement, imaging and analysis. We will concentrate in four main areas: (1) Informatics, Imaging and Instrumentation (theoretical core program); (2) Measuring Cosmos from Particles and Galaxies; (3) Measuring a Changing Planet; and (4) Biological, Medical and Materials Imaging

- Develop a technical workforce by creating internships for students in measurement and instrumentation technology
- Create a gateway for Ohio industries to advanced instrumentation and expertise available on campus, including a partnership that enhances instrument development

Multiscale Science

The frontiers of science are often found at the extremes of length, time or energy. Increasingly, however, new scientific opportunities cross multiple scales and can only be addressed by interdisciplinary teams of researchers. For example, biochemical, molecular, and evolutionary tools and concepts developed within individual biological sub-disciplines are now applied throughout the life sciences. Similarly, the development of new materials for computer and information technology, for batteries and photovoltaics, and for bio-engineering, is one of the foundations for technological innovation in our modern economy. This initiative identifies in two areas of multi-scale science - biological and materials research - where Ohio State has existing strengths and the economic potential is significant.

Priority 1: Connecting genes to the biosphere. This initiative will be anchored by two growing university initiatives: the Center for RNA Biology (CRB) and the Center for Biodiversity Research and Analysis (CEBRA).

- Deliver a comprehensive teaching, training and internship programs for students and postdoctoral scholars; including experience from the field to the laboratory and a significant international component
- Develop a consultancy/outreach programs to industry and government and establish incubator programs for translating research and intellectual property into the marketplace

Priority 2: From molecules to materials to markets.

- Create an Institute for Science, Innovation and Society (ISIS) focused on work-force development, entrepreneurship, job creation, and impact of science and technology on society. The mission of ISIS is (1) Transformational learning that draws students with interests in business and policy to STEM fields and enhances business awareness among students in STEM fields via a new Ohio State Entrepreneurship Institute; (2) Cutting-edge scholarly research on science to inform policy; (3) Assessing the social, medical, technological and economic impacts of research

Urban Studies

Urban areas are clearly fundamental to the economy of the state as points of innovation and development, but also through their activities and their connections to urban areas across the nation and the world, and to our analysis and understanding of the broader process of economic and political development. The Ohio State University is one of very few institutions within the CIC that is located in

an urban setting. Development of comprehensive programming in Urban studies has the potential to advance research and teaching collaboratives around (a) urban resource and population disparities as they relate to health and wellbeing, (b) energy cost, use, and environmental impact; and (c) urbanization of populations with distinctive, changing, and interdependent economic, cultural, and historical outcomes and social geographies.

Priority 1: Establish an administrative structure and appoint a director to develop and oversee the research, curricular, and outreach activities of a comprehensive Urban Studies Initiative

- Assure an adequate outreach and engagement presence (e.g., a portal through which community leaders could bring their questions and concerns to Ohio State) given the many opportunities to partner with the greater Columbus community

Resource Stewardship

Become the model for an affordable public university recognized for financial sustainability, unsurpassed management of human and physical resources, and operational efficiency.

Biological, Psychological and Social Pathways to Health and Well-being

Ohio State researchers in the Arts and Sciences have been involved in studying the biological, psychological, and social pathways to health and wellbeing from either the micro-level study of individual health determinants (genetic, neural, biochemical, personality and cognitive mechanisms) and treatment outcomes *or* the macro-level study of health across various populations (men, women, African Americans, immigrants, elderly, poorer populations). Truly transformative discoveries that fundamentally alter our understanding require new tools and data analytic techniques, and large, representative, and longitudinal data sets; they also require structures and programming that bring researchers from across disciplines together to address common problems at multiple levels of analysis. This initiative builds upon existing university strengths but goes far beyond them.

Priority 1: Develop and patent a large scale, representative, and longitudinal data base (Information Bank)

- Market data base to scientific and business partners in Ohio and at national and international levels.

Cyber Enabled Discovery

Cyber-enabled discovery is the study of complex natural, human, and technological systems and their interactions through the use of computer modeling and analysis of large data sets. The significant problems of the 21st century are frequently embedded in very complex systems, therefore, understanding the world around us requires a lens through which we view the world, and the primary lens is a model, or an abstract, simplified view of reality.

Priority 1: Establish a CED Network at Ohio State to provide guidance and establish priorities

- Make new appointments that include: interdisciplinary research and collaborative partnerships

Priority 3: Invest in and develop targeted data repositories for teaching and research

- Focus funding for “working” data (e.g., large amounts of temporary space needed for certain phases of a project) on storage and data management resources that can be repurposed from one project to the next and shared across disciplines
- Inventory existing “preservation” data collections and determine the extent to which they could (or should) fit into national taxonomies or repositories – make the data being preserved at the university shareable beyond Ohio State to maximize its value
- Adopt NSF and other funding agencies data sharing requirements and data management solutions in coordination with the CIC to avoid reinventing the wheel

Decision Sciences and Human Behavior Change

Individual and group decisions alter substantive outcomes such as health behaviors, energy use, water rights and use, and poverty. Yet, at Ohio State and in most universities, research and teaching to address decision making and human behavior change are spread across disparate departments with little overall organization or coordination. Recent efforts at the university to emphasize Behavioral Decision Making (BDM) have provided a core set of researchers and teachers to guide an effort to create an internationally prominent presence for Ohio State in decision science. Further development will make significant contributions to all three of the discovery areas that have been identified for investment in the university’s strategic plan: Health and Wellness, Food Production and Safety; and Energy and Environment.

Priority 1: Establish a comprehensive research center in Decision Sciences and Human Behavior Change at

<p>The Ohio State University. The College of Arts and Sciences (and the University at-large) has an immense capacity in terms of faculty research and scholarship to support a research center in this area with national and international distinction</p>
<ul style="list-style-type: none"> • Develop research collaboratives that promote work on Foundational Approaches to investigating human reasoning and decision-making (i.e., the descriptive, the process-oriented, the normative/rational, and the prescriptive approaches to decision making) and applications to the university’s discovery themes of (a) Energy and Environment, (b) Health and Wellness, and (c) Food Security and Production
<ul style="list-style-type: none"> • Appoint faculty and postdoctoral and visiting faculty fellows to work in one or more of the above-described research collaboratives. Acquire the requisite space, equipment (including computing, eye-tracking, and physiological recording equipment), and resources (financial incentives for research participants, and personnel for large data collections) to facilitate their research, training, and outreach activities

<p>Enhancing the Student Learning Experience</p> <p>The College of Arts and Sciences also recognizes that learning can and should take place outside of the formal classroom and laboratory settings during individualized learning opportunities as well as when working with individuals and groups on- and off-campus. We will significantly expand and enhance high quality learning opportunities for arts and sciences students that include improvements in classroom teaching experiences as well developing quality experiences that go well beyond the traditional undergraduate classroom and laboratory, which we referred to as experiential learning opportunities. Student learning experiences will also be enhanced by the further development of new student programs is also a major goal of many of the other initiatives, by more fully integrating technology into the learning experiences, by improving advising and mentoring of our students, and by developing more team-teaching opportunities for our faculty.</p>
<p>Priority 1: Enhancing Experiential Learning Opportunities.</p> <ul style="list-style-type: none"> • Broaden the mission of the Arts and Sciences Career Services Office to support and foster the enhancement of a variety of experiential learning opportunities including internships, service learning, study abroad and research activities.
<p>Priority 2: E-Learning.</p> <ul style="list-style-type: none"> • Develop college guidelines for the development of on-line courses (whether completely on-line or hybrid) and increase the number of courses that use E-Learning approaches including hybrid and distance course formats.

<p>Environment, Energy and Sustainability</p> <p>As John P. Holdren, Director of the Office of Science and Technology Policy, put it recently, “Energy is the hardest part of the environment problem; environment is the hardest part of the energy problem, and resolving the energy-economy-environment dilemma is the hardest part of the challenge of sustainable well-being for industrial and developing countries alike.” Ohio State is one of only a handful of academic institutions around the country that has the right mix of capabilities, skills and expertise to fundamentally shift how we approach research and education in this area. The challenges and uncertainties we face provide us with an unprecedented opportunity to build on our existing strengths and to establish Ohio State as a premier institution fostering learning, discovery and outreach at the nexus of environment, energy and sustainability.</p>
<p>Priority 1: Develop a scientific and operational mechanism to (a) identify specific research themes and opportunities as targets for semester or annual focused programs in the area of environment, energy and sustainability; (b) convene relevant university researchers around the current theme to tailor a program of visiting scholars, workshops, short courses, seminars and seed grants; (c) encourage formation research partnerships that will be competitive for external funding; and (d) serve as a nationally recognized center of expertise in this broad area.</p>

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| <ul style="list-style-type: none"> • Improve coordination and utilization of existing instructional and laboratory capabilities |
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<p>Humanities – The Core Understanding of the Human Condition</p> <p>We affirm the fundamental significance of the liberal arts in shaping the contexts for discovery and self-discovery, learning, and wise engagement. Research and scholarship in the humanities are indispensable for understanding conceptual foundations, examining normative contexts, and generating fresh insights and approaches in the challenges of social and technological change.</p>
<p>Priority 1: Reinvest in the Humanities Institute to allow the Institute to serve as an incubator</p> <ul style="list-style-type: none"> • Provide the Institute with administrative assistance to develop an NEH Challenge Grant, and facilitate other grant proposals such as the NEH Collaborative Grants
<p>Priority 2: Establish a Center for Ethics and Human Values based on the efforts of the current Innovation Group</p> <ul style="list-style-type: none"> • Assign base level funding that supports an Annual Conference, Lecture Series, and annual COMPAS (Conversations on Morality, Politics, and Society) thematic project that extends across campus. COMPAS should be an annual, coordinated effort across many disciplines • Seek external funding to establish a Fellows program to bring external scholars to the Center
<p>Priority 3: Establish a collaborative and cooperative administrative structure for our language departments that better captures their individual strengths and takes advantage of the physical attributes of Hagerty Hall</p> <ul style="list-style-type: none"> • Formalize the curricular publication efforts of our Foreign Language Center to serve multiple disciplines • Increase the number of endowed chairs in languages, literatures, and cultures to raise the overall profile of the faculty • Establish policies, fiscal support, and physical locations for journal efforts across the multiple arts and humanities disciplines • Create more donor study experiences like History’s WWII course model to expose the work of our faculty and increase funding sources

<p>Integrated Arts, Media & Enterprise</p> <p>We seek to enhance current academic programs, renovate select campus facilities, and through the opportunity to develop new curricular initiatives, establish a clustered and expanded arts neighborhood that identifies 15th and High as “the critical pulse on the cultural corridor and historic gateway to OSU.” The college will establish a prominent arts presence and entryway to the campus along with projects that reach out beyond the campus to demonstrate the active contribution and significance of the arts to the larger community.</p>
<p>Priority 1: Establish an arts neighborhood</p> <ul style="list-style-type: none"> • Invite appropriate non-ASC units to collaborate on the design, use and polices of proposed facility • Improve the working relationship with the Wexner Center to include: reduced rates and appropriate access to Mershon Auditorium, access and integration of the Wexner Media Arts exhibition series and Wexner Art and Technology Filmmakers’ Residency Program • Develop a master plan for projected siting and funding for the relocation of theatre from Drake to the arts neighborhood
<p>Priority 2: Review and enhance curriculum from an integrated perspective</p> <ul style="list-style-type: none"> • Align faculty and curricular growth of Music Media and Enterprise, Art and Technology, Music Composition, Moving Image Production, and ACCAD through coordinated space allocation and faculty/staff appointments • Scheduling a common block across arts unit level scheduling to enable cross-disciplinary work • Form and formalize “The Lantern Media Group,” to include the <i>Lantern</i> newspaper, <i>Lantern</i> “On-Line” and Buckeye TV closed circuit television
<p>Priority 3: Develop creative community partnerships, faculty and staff appointments reflecting the</p>

necessary institution support for the visual and performing arts
<ul style="list-style-type: none"> • Directly link the School of Music Opera Program with the Department of Theatre and formalize programmatic relationships with Opera Columbus, Columbus Symphony Orchestra, and other presenting organizations
<ul style="list-style-type: none"> • Increase production support based staffing across arts units to enable cross-disciplinary and inter-disciplinary production efforts
<ul style="list-style-type: none"> • Consolidate Gallery management and support staffing under the college
<ul style="list-style-type: none"> • Coordinate performances and presenting schedules with CAPA
<ul style="list-style-type: none"> • Establish an Arts Extension Specialist
<ul style="list-style-type: none"> • Partner with WOSU-Public Media for student opportunities

Internationalizing the ASC Curriculum and Programs

The College of Arts and Sciences has many faculty members who conduct research and teach in a wide variety of international areas and is home to language instruction on campus. At this time there is a great opportunity to increase our efforts in internationalizing our academic curriculum and programs across the board so our students can function effectively in our ever-expanding global society. To this end, we will pursue several initiatives that will further expose our students to cultures and experiences outside of this country as well as enhancing our research engagement in areas related to global and international subject matters. Our approach is based on a framework consisting of three overarching rubrics: foreign language instruction; internationalizing curricula and programs (other than language instruction); and providing additional international experiences.

Priority 1: Foreign Language Instruction.

- Explore ways to better organize our outstanding language departments to improve the quality and accessibility of language and culture instruction at Ohio State, encourage collaboration between units, and enhance the preparation of our students.

Priority 3: International Experiences

- Establish an incentive-based funding model for developing new study-abroad courses and experiences.

Literacy, STEM, and Research Interpretation

Interest in STEM education reflects concern regarding the extent to which the general public fails to understand university research and lacks the scientific and quantitative literacy to be effective stewards of public policy. We seek to have our students become our best advocates for research as they learn to be well informed and actively informed citizens. As part of our land grant mission, we engage with the wider community to share our research, teaching, and service expertise for the benefit of the public in new and creative ways.

Priority 2: Improve Resources for STEM Engagement and Research

- Establish of a university-wide collaborative structure for STEM outreach
- Inventory existing resources and support environment and their current and anticipated needs
- Develop faculty incentives to enhance the scholarship of teaching and learning, and opportunities for professional development

Measurement and Imaging

Measurement and imaging tools extend our senses and allow us to perceive the world in seemingly miraculous ways: to see an individual star from across the cosmos, to remotely sense the Earth from orbit, to view the interior of a living brain, to manipulate an individual strand of DNA. The experimental use of these tools leads to deeper understanding of fundamental science and to the development of new technology. The skills honed in this cycle of discovery, invention and innovation are essential for the progress of research, the development of new technology and the training of a highly skilled national

workforce.
Priority 1: Develop cutting-edge instruments and technology for measurement, imaging and analysis. We will concentrate in four main areas: (1) Informatics, Imaging and Instrumentation (theoretical core program); (2) Measuring the Cosmos from Particles to Galaxies; (3) Measuring a Changing Planet; and (4) Biological, Medical and Materials Imaging
<ul style="list-style-type: none"> • Develop world-class, campus-wide, core facilities for bioinformatics and deep sequencing; for proteomics and metabolomics; for structural biology and materials research; and others
<ul style="list-style-type: none"> • Connect different groups on campus engaged in developing new instrumentation to share expertise and infrastructure
<ul style="list-style-type: none"> • Leveraging existing strengths to develop new remote sensing capabilities and novel microscopies, spectroscopies and sensors
<ul style="list-style-type: none"> • Create gateway for Ohio industries to advanced instrumentation and expertise available on campus, include partnerships that enhance instrument development

<p>Multiscale Science</p> <p>The frontiers of science are often found at the extremes of length, time or energy. Increasingly, however, new scientific opportunities cross multiple scales and can only be addressed by interdisciplinary teams of researchers. For example, biochemical, molecular, and evolutionary tools and concepts developed within individual biological sub-disciplines are now applied throughout the life sciences. Similarly, the development of new materials for computer and information technology, for batteries and photovoltaics, and for bio-engineering, is one of the foundations for technological innovation in our modern economy. This initiative identifies in two areas of multi-scale science - biological and materials research - where Ohio State has existing strengths and the economic potential is significant.</p>
Priority 1: Connecting genes to the biosphere. This initiative will be anchored by two growing university initiatives: the Center for RNA Biology (CRB) and the Center for Biodiversity Research and Analysis (CEBRA).
<ul style="list-style-type: none"> • Increase investment in genomics and bioinformatics personnel, equipment and infrastructure - the research capacity needed to bridge scales across all the biological sciences
Priority 2: From molecules to materials to markets.
<ul style="list-style-type: none"> • Foster cutting edge research and interdisciplinary collaboration by strategic investment in developing and maintaining world-class research infrastructure
<ul style="list-style-type: none"> • Create an Institute for Science, Innovation and Society (ISIS) focused on work-force development, entrepreneurship, job creation, and impact of science and technology on society. The mission of ISIS is (1) Transformational learning that draws students with interests in business and policy to STEM fields and enhances business awareness among students in STEM fields via a new Ohio State Entrepreneurship Institute; (2) Cutting-edge scholarly research on science to inform policy; (3) Assessing the social, medical, technological and economic impacts of research

<p>Urban Studies</p> <p>Urban areas are clearly fundamental to the economy of the state as points of innovation and development, but also through their activities and their connections to urban areas across the nation and the world, and to our analysis and understanding of the broader process of economic and political development. The Ohio State University is one of very few institutions within the CIC that is located in an urban setting. Development of comprehensive programming in Urban studies has the potential to advance research and teaching collaboratives around (a) urban resource and population disparities as they relate to health and wellbeing, (b) energy cost, use, and environmental impact; and (c) urbanization of populations with distinctive, changing, and interdependent economic, cultural, and historical outcomes and social geographies.</p>

<p>Priority 1: Establish an administrative structure and appoint a director to develop and oversee the research, curricular, and outreach activities of a comprehensive Urban Studies Initiative.</p>
<ul style="list-style-type: none"> • Establish interdisciplinary research collaboratives around three themes: (a) Urban Disparities and well-being, including a focus on disparities in experience and access to resources such as schools, housing markets, financial institutions, medical access, cultural institutions, workplaces; (b) Urban Innovation and Development, including a focus on economic, political, and cultural advancement, and intellectual innovation; and (c) Mobility, Migration, and Social Networks, with a focus on the interconnectedness of people, groups and structures; and (d) the American democratic process.
<ul style="list-style-type: none"> • Assure an adequate outreach and engagement presence (e.g., a portal through which community leaders could bring their questions and concerns to Ohio State) given the many opportunities to partner with the greater Columbus community

Resources: Our Faculty and Staff:

Our most important resource in the College of Arts and Sciences is by far our faculty and staff. Plans for the further development of our faculty can be found throughout the initiatives we have described above. In addition, we will take several other steps to enhance the development of our faculty at all stages of their careers and include faculty into the decision-making process in the College, including:

- Working on a multilevel approach to better communication with faculty.
- Providing an excellent mentoring environment for untenured faculty and better support of mid-career faculty.
- Developing a supportive environment for auxiliary faculty.
- Providing support and adequate reward structure for faculty members who invest time into the development of initiatives described in the strategic plan.
- Making careful decisions about the relative value of investing in existing faculty versus appointing new faculty to support the initiatives of the strategic plan as well as supporting existing programs while developing new programs.
- Developing mechanisms and means to get faculty together to discuss developments on interdisciplinary teaching and scholarship.
- Developing a formal review process in the college for new and existing centers or institutes to assess continued viability.
- Developing college guidelines and policies regarding the appointment and evaluation of interdisciplinary faculty who support the proposed initiatives including clear understanding of expectations for promotion and tenure and annual reviews.
- Developing clear policies and guidelines regarding interdisciplinary (team) teaching.
- Encouraging departmental involvement in interdisciplinary teaching and scholarship, making sure that departmental policies are aligned with college expectations and policies.
- Developing clear evaluation and reward structures for faculty involvement in outreach and engagement activities and ways to encourage faculty participation in developing distance learning opportunities and better integrating technology into teaching and learning.
- Developing a sustainable, long-term process for evaluating and implementing proposals for new investments in support of the strategic plan.

The future of the College of Arts and Sciences is also intimately tied to the quality of staff in the College. With the assistance of the ASC Staff Advisory Council, we will work on the following goals

to enhance our involvement of the staff in the college as well as provide professional development opportunities:

- Encourage professional development for staff
 - Create and provide career progression resources by developing a workforce plan for ASC; reviewing, revising and standardizing position descriptions that promote consistency in the college and are based on position requirements, knowledge, skills, abilities and experience; and develop college-wide workshops that encourage professional development
 - Establish a mentoring program for staff that includes activities such as a job shadowing program, an ASC staff discovery series, and a comprehensive onboarding program for all new staff.
 - Encourage and support the pursuit of educational and professional development opportunities including the creation of a comprehensive ASC Staff Advisory Council website with staff resources page listings.
- Enhance rewards and recognition programs for staff
 - In conjunction with the ASC Staff Advisory Committee, review staff reward structure and opportunities for improvements
 - Expand staff appreciation and recognition programs
- Improve workplace environment
 - Build deeper understanding of individual roles, talents and strengths that faculty and staff members play in improving environment and emotional health of all employees through staff surveys and college-sponsored themed world café discussions.

Resources: Our Commitment to Diversity

Our commitment to diversity is articulated above in the “College Overview” section of this strategic plan. Some concrete initiatives that provide some strategies for realizing this commitment are described here.

- We will be proactive in our approach to diversity issues in ASC by:
 - Conducting a baseline assessment of the diversity climate in the college and then developing a college-wide diversity plan.
 - Requiring that every college unit establish a formal comprehensive Diversity Plan that is filed in the ASC office and regularly reviewed.
 - Appointing more faculty from under-represented groups and strengthen efforts to competitively retain faculty appointed
 - Promoting the College diversity mission statement and develop a POA that interweaves diversity throughout and institutionalize it in all ASC practices.
 - Examining the missions and future of such non-TIU units as the Humanities Institute and Diversity and Identity Studies Collective at Ohio State (DISCO) to play a more central role in teaching and scholarship related to diversity as well as other matters related to diversity.
 - Reviewing the GE diversity requirement and diversity components within course curricula.

- Examining graduate student admissions, recruitment and retention as related to diversity issues.
- Strengthening and expanding current undergraduate student service diversity “best practices” programs for recruitment and retention.
- We will advance diversity through our faculty recruitment, hiring and retention policies and practices by:
 - Developing a toolkit of “best practices” for the recruitment, hiring, and retention of faculty that promotes diversity.
 - Developing specific training programs for search committees to assist units in identifying diverse pools, prioritizing diversity among finalists, and succeeding in hiring diverse candidates.
 - Pursuing cluster hiring across units and divisions to support innovation in research and creative activities and to enhance diversity.
 - Holding units accountable for ensuring diversity in search pools, both as a target and as an achieved goal.
- We will continue our efforts to broaden participation of ASC units in diversity matters by:
 - Expanding existing programs, such as the Diversity Enhancement Project (DEP), which includes a mentoring program for junior faculty of color, a Research Working Group, and diversity small grants support.
 - Developing a set of mentoring guidelines and a review process similar to those inaugurated by Project CEOS that is applicable across the college.
 - Developing a diversity committee structure in ASC.

Resources: Physical Environment and Infrastructure

The College of Arts and Sciences is distributed in about 1.6 million square feet of space contained in 62 different buildings across campus. Over the next 5 years we will continue to improve our facilities and look for new ways to more effectively use our spaces. We will:

- Develop and widely distribute policies and metrics that can be used to assign spaces fairly and efficiently within ASC departments and buildings.
- Better coordinate the use of our existing server rooms, rack space, servers, and system administrators to increase the capacity and capabilities of our existing facilities without compromising department-specific IT needs and capabilities; craft a five-year plan for IT infrastructure that identifies resources, including space, to accommodate growth of existing programs and new initiatives over the next three to five years.
- Identify spaces to serve as incubators for clusters of emerging centers.
- Continue to develop long term capital improvement plans facility and space improvements. Craft a plan that includes new buildings and significant renovations to handle growth of existing programs and house new and exciting initiatives that emerge from the strategic plan. To meet the principle of “no net new academic square footage” we will continue to vacate low-quality space and substitute it with higher quality spaces.
- For any new initiatives that require large capital expenditures for space and/or equipment develop business plans and/or a fundraising feasibility studies that include milestones and metrics to help the college track resource commitments.

- Increase access to and avoid unnecessary duplication of facilities and equipment by conducting and publishing a comprehensive inventory of major research instrumentation; shops and similar support facilities; department and college computing facilities and services and spaces that can accommodate video-conferencing, distance education, and e-learning.
- Many of our science-oriented initiatives involve major instrumentation. Join with the Office of Research and other colleges and centers to establish a series of Campus Instrumentation Centers to acquire and accommodate expensive, state-of-the-art instruments that should be used 24/7 by researchers and students across the university.
- Develop a comprehensive space plan for Arts and Sciences Student Services, including all of its functions in Denney and Townshend plus the soon-to-be orphaned ASC honors and scholars programs.

Resources: Enrollment Planning

By early in the fall of 2012 the college will develop a comprehensive enrollment plan based on the strategic initiatives described above.

Resources: IT

By early in the fall of 2012 the college will develop a comprehensive IT plan based on the strategic initiatives described above.

Resources: Advancement Overview

The College of Arts and Science current goal for the “But for Ohio State” campaign is \$175,000,000. Some examples of our priorities and strategies for this campaign are:

- *Place Students First:* Students, both undergraduate and graduate, are at the heart of the College’s strength. A major thrust of the campaign will be to increase funding to recruit and retain students who will be diverse, competitive, and will have campus prepared to address the world’s challenges. Examples include:
 - Establishment of a comprehensive program to provide international educational opportunities for students such as fully funded scholarships for 4 week to 3 month study abroad experiences, professorships in international studies, fellowships and research funds for students whose research is abroad.
 - Establishing an Executive Dean’s Scholars Program which will provide funds for undergraduate students to pursue individual research and scholarship with individual faculty mentors
- *Elevate Faculty and Academic Program Excellence:* The campaign will have a major impact on our ability to recruit and retain star faculty members as well as invest in targeted

programs that cut across traditional boundaries of teaching and research. Examples include:

- Development of new Moving Images Production academic program that brings together wide interests in the College in film, computer graphics and the arts.
 - Mid-career faculty fellowships for newly promoted associate professors to facilitate new directions in their research, especially in developing and promoting interdisciplinary scholarship.
- *Create Modern Learning Environments:* Creating new and renovating existing space for our students and faculty to conduct research, teach and learn, and congregate is critical to the continued success of the College. The College's physical presence must be improved to keep pace with the quality students and faculty on campus. Examples include:
 - Integrated Arts Center (Sullivant Hall renovations)
 - Improvements to facilities in the School of Music.
 - New and modernized chemistry laboratories and associated facilities
- *Embolden the Research Agenda:* With more than 20 world-class research centers that cover the full range of the arts and sciences, opportunities exist to support the research agendas of star faculty as well as supporting new and mid-career faculty. Examples include:
 - Investments in the Center for Cognitive and Behavioral Brain Imaging including research pilot funds, new professorships, and graduate student research fellowships as well as undergraduate research support.
 - Investments in the establishment of a world-class RNA Biology Center/Institute including research pilot funds, new professorships, and graduate student research fellowships as well as undergraduate research support.
 - Establishing and interdisciplinary center for American politics and democracy including research pilot funds, new professorships, and graduate student research fellowships as well as undergraduate research support.
- *Drive High Impact Innovation:* The true strength of a robust College of Arts and Sciences is its ability to drive innovation in teaching, outreach, and research. Examples include:
 - Establishing an Executive Dean's Innovation Fund will allow the College to selectively invest in new interdisciplinary and cross-disciplinary programs and research which will help set the path for future discoveries.
 - Funding for programs involving Entrepreneurship in the Arts
 - Support for Service Learning and civic engagement activities in arts and sciences.

Tracking Our Performance

DEFINITIONS

Metric U1: Graduate Student Academic Quality Index

Goal: Teaching & Learning
Baseline Index Score: 73.25

Focus: Incoming Student Quality
Target Index Score: 79.50

Definition: The Academic Quality Index (AQI) is determined by first calculating the average best scores of incoming graduate students of the predominant entrance exam used within that college and then determining the corresponding percentile score. For the GRE, separate percentiles are calculated for the Quantitative and Verbal exams, and these percentile scores are averaged for the AQI. We encourage goals to be based on percentiles rather than scores, as the GRE is undergoing a dramatic change in scoring methodology.

Metric U2: NSSE Enriching Educational Experiences Score

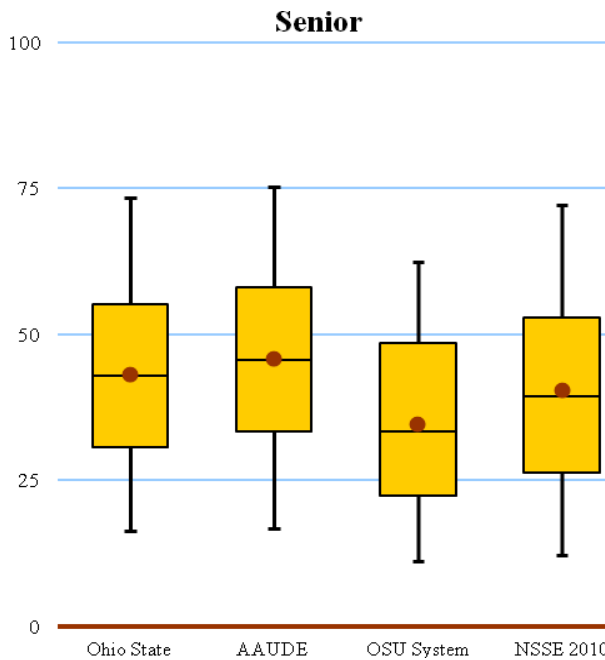
Goal: Teaching & Learning
Baseline Score: 44.3

Focus: Program Excellence
Target Score: 48

Definition: The mean score for ASC seniors on the Enriching Educational Experience benchmark from the National Survey of Student Engagement. This benchmark summarizes responses to questions focused on high impact practices, diversity and international experiences, and complementary learning experiences. Questions specifically address:

- Hours spent participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, etc.)
- Practicum, internship, field experience, co-op experience, or clinical assignment
- Community service or volunteer work
- Foreign language coursework and study abroad
- Independent study or self-designed major
- Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)
- Serious conversations with students of different religious beliefs, political opinions, or personal values
- Serious conversations with students of a different race or ethnicity than your own
- Using electronic medium (e.g., listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment
- Campus environment encouraging contact among students from different economic, social, and racial or ethnic backgrounds
- Participate in a learning community or some other formal program where groups of students take two or more classes together

The chart below provides scores for AAU institutions participating in NSSE (AAUDE), scores for the university that include the Ohio State regional campuses, and all schools participating in NSSE (NSSE 2010).



Each box and whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot shows the benchmark mean. The mean for Ohio State is 43, and the mean for AAU participant institutions is 46.

Technical details on how the benchmark scores are computed are available online at <http://nsse.iub.edu/?cid=217>.

Metric U3: USNWR Graduate Ranking among National Universities: ASC programs/specialties

Goal: Teaching & Learning

Focus: Program Excellence

Baseline Rank: 7 in top 10; 10 in top 15

Target Rank: 9 in top 10; 13 in to 15

Definition: Number of Arts and Sciences programs and specialties that are ranked in the top 10 or top 15 in 2012 USNWR Best Graduate Schools. The following 10 ASC programs and specialties are ranked:

American Politics	8	Interior Design	2
International Politics	15	Industrial Design	7
Paleontology	9	Sculpture	11
Political Methodology	11		
Social Psychology	2		
Social Stratification	8		
Ceramics	4		

Note: Baseline data is 2011 data published in 2012 edition of US News Rankings

Metric U4: Post-graduation Outcomes Index

Goal: Teaching & Learning

Focus: Student Outcomes

Baseline Index Score: TBD

Target Index Score: TBD

Definition: This metric is under development. The Office of Institutional Research and Planning (IRP) will compare data about undergraduates, master’s, and professional students from the exit survey conducted by the Center for the Study of Student Life and from the Graduate Outcomes Survey conducted by IRP to data collected by career services offices in several colleges. This study is intended to determine how well data from either survey represents the more complete data collected by several colleges. It is expected that outcomes data for doctoral students will come from the information collected through the Graduate School portal, through which doctoral programs provide information about first and current positions for all PhD graduates.

Metric U5: Undergraduate Graduation Rate

Goal: Teaching & Learning
Baseline Rate: 80%

Focus: Student Outcomes
Target Rate: 85%

Definition: The graduation rate for undergraduate cohorts of students who were directly enrolled in ASC in their first autumn quarter at Ohio State. Cohorts include students who began in the summer or fall term of an academic year and were enrolled full-time in the autumn of that same academic year. The traditional measure is a 6-year rate. The 2011 baseline graduation rate is based on the cohort entering Ohio State in 2005.

Metric U6: Total ASC National Academies / American Academy of Arts and Sciences Members

Goal: Research & Innovation Goal
Baseline Number: 6 / 15

Focus: Reputation
Target Number: 9 / 18

Definition: The number of living Ohio State faculty, including emeritus faculty, who have been elected to the National Academy of Sciences, National Academy of Engineering, Institute of Medicine and to the American Academy of Arts and Sciences. The numbers for the National Academies and for the American Academy of Arts and Sciences are provided separately, and faculty elected to both are counted in both baseline numbers. For the College of Arts and Sciences, the faculty included in these numbers are:

National Academies:

Chisholm, Malcolm
Denlinger, David
Friedman, Avner
Henkin, Tina
Mosely-Thompson, Ellen
Paquette, Leo
Thompson, Lonnie
Wilson, Kenneth

Cole, Henri
Culicover, Peter
Dowty, David R
Friedman, Avner
Golubitsky, Martin
Hamilton, Ann
Henkin, Tina
Joseph, Brian
Mosely-Thompson, Ellen
Mueller, John
Petty, Richard E.
Schmeidler, David
Wilkins, John

American Academy of Arts & Sciences:

Brewer, Marilynn
Chisholm, Malcolm

Metric U7: Total ASC Faculty Scholarly Productivity Index Rating

Goal: Research & Innovation Goal

Focus: Productivity

Baseline Index Score: TBD

Target Index Score: TBD

Definition: The Faculty Scholarly Productivity Index (FSPI) was developed by Academic Analytics, LLC. The FSPI allows for comparisons across institutions as well as across disciplines. The index is based on data in the following areas: journal publications, books, citations, research grants, awards and honors. The Index Score is calculated using weighted z-scores* for the data elements relevant for each discipline. For example, the weightings for two very different programs are as follows:

History of Art	Physics
Citations: 2%	Citations: 27%
Journal Articles: 4%	Journal Articles: 40%
Honorific Awards: 20%	Honorific Awards: 13%
Books: 74%	Grants: 20%

Each category comprises multiple subcategories:

Books	% of Faculty who have Authored a Book; Books per Faculty
Articles	% of Faculty who have Authored an Article; Articles per Faculty
Citations	% of Faculty with Articles Cited; Citations Per Faculty; Citations Per Article
Grants	% of Faculty with Federal Grants; Grants per Faculty; Grant \$ per Faculty; \$ Per Grant
Awards	% of Faculty with an Award; Awards per Faculty

The subcategories are also weighted to derive the category score. These subcategory weightings are proprietary information and not shared by Academic Analytics, LLC. Colleges wishing to have staff credentialed to use the Academic Analytics online data system should contact Julie Carpenter-Hubin in the Office of Institutional Research & Planning.

** The z-score quantifies the distance a data point is from the mean of a dataset and standardizes the distance so that multiple datasets can be measured and understood in the same way.*

Metric U8: ASC Total OSURF Sponsored Research Expenditures

Goal: Research & Innovation Goal

Focus: Productivity

Baseline: \$81,889,280

Target: \$96,000,000

Definition: Total College of Arts and Sciences sponsored research expenditures as reported by OSURF; source e-Activity. Discussion about whether this is the appropriate measure of research productivity is on-going.

Metric U9: ASC Commercialization Success Index

Goal: Research & Innovation Goal

Baseline Index Score: TBD

Focus: Productivity

Target Index Score: TBD

Definition: This metric is currently under development.

Metric U10: ASC Industry Research Expenditures

Goal: Outreach & Engagement Goal

Focus: Strategic Partnerships

Baseline: \$1,892,702

Target: \$8,000,000

Definition: Industry-financed research expenditures. Industry funds are defined as funds with a PRIMARY funding source of industry. Pass through funds that touch industry, but do not originate from industry are not categorized as industry funds as reported by OSURF.

Metric U11: OSU Publications Cited by Industry Patents

Goal: Outreach & Engagement Goal

Focus: Strategic Partnerships

Baseline Share: TBD

Target Share: TBD

Definition: This metric is currently under development.

Metric U12: Signed MOUs for Active State, National, and International Partnerships

Goal: Outreach & Engagement Goal

Focus: Strategic Partnerships

Baseline Count: TBD

Target Count: 10% increase

Definition: The number of active partnerships with business, industry, governmental organizations, arts and other community organizations for which MOUs have been signed. The sources for the related University metric are Business & Finance and Legal Affairs; the source for the ASC metric is ASC.

Metric U13: Percentage of Students Completing an Internship

Goal: Outreach & Engagement Goal

Focus: Critical Workforce Development

Baseline Percentage: 77%

Target Percentage: 85%

Definition: From the National Survey of Student Engagement (NSSE), the percent of seniors who responded that they have completed or plan to complete a practicum, internship, field experience, co-op experience, or clinical assignment.

Metric U14: Number of Patients/Clients Served

Goal: Outreach & Engagement Goal

Focus: Outreach Programs and Awareness

Baseline Count: 1,512

Target Count: 1,625

Definition: The aggregated count of patients and clients served by students and faculty in the Speech and Hearing Clinic, Psychological Services Center and other clinics/centers. The source for this metric is ASC.

Metric U15: Enrollment in Non-credit Courses and Programs

Goal: Outreach & Engagement Goal
Baseline Index Score: TBD

Focus: Outreach Programs and Awareness
Target Index Score: TBD

Definition: Number of non-credit enrollments through Continuing Education; enrollments and clients served through Extension; estimated number of attendees at lectures, performances, workshops and similar events provided to external audiences.

Metric U17: Workplace Culture Index

Goal: Resources Goal
Baseline Index Score: 72

Focus: Resources - People
Target Index Score: 78

Definition: This index combines the five dimensions captured by the Culture Survey (not including resources) for T/TT faculty, auxiliary faculty, clinical faculty and staff; weighting the dimension scores by the population of each.

Metric U19: Non-Retirement Turnover for Faculty

Goal: Resources Goal
Baseline Index Score: TBD

Focus: Resources - People
Target Index Score: TBD

Definition: This metric is currently under development.

Metric U20: New Fundraising Activity

Goal: Resources Goal
Baseline Amount: \$19,184,662

Focus: Resources - Dollars
Target Amount: \$35,000,000

Definition: New Fundraising Activity is the sum of Private Gift Activity (through OSU Foundation) and Private Grant Activity (through OSP) for the fiscal year. Private Gift Activity includes outright gifts of cash, securities and gifts-in-kind, new pledges and new planned gift commitments.

Metric U21: Efficiency Metric

Goal: Resources Goal
Baseline: TBD

Focus: Resources - Dollars
Target: TBD

Definition: This metric is currently under development.

Metric U23: Average Facility Condition Index

Goal: Resources Goal

Baseline Percentage: 76.5%

Focus: Resources - Facilities

Target Index Score: 82%

Definition: The facility condition index measures the percent of a building that is like new, with 100% reflecting a brand new building, 80% reflecting a building that is less than brand new but adequate, and below 80% reflecting growing renewal and deferred maintenance needs. The average used for this metric is the average of all ASC buildings on campus.

Metric C1: Student Experiential Learning Participation

Goal: Teaching and Learning

Baseline Percentage: 85%

Focus: Student Outcomes

Target Index Score: 95%

Definition: The student experiential learning participation measures the number of students who are arts and sciences major that participate in individual research, study abroad, internships, or service learning opportunities. It is the percentage of students who participate in one of these activities.

Metric C2: Interdisciplinary Majors/Minors

Goal: Teaching and Learning

Baseline Percentage: TBD

Focus: Program Excellence

Target Index Score: 10% increase

Definition: Interdisciplinary Majors/Minors refers to the number of interdisciplinary Majors or Minors or degree programs offered in arts and sciences where interdisciplinary is defined as participation of more than one academic units in offering the major, minor or degree.

Metric C3: Top 10% Students

Goal: Teaching and Learning

Baseline Percentage: TBD

Focus: Incoming Student Quality

Target Index Score: TBD

Definition: This metric is defined as the percentage of entering freshman students who declare initial majors in the College of Arts and Sciences and were in the top 10% of their graduating high school class.

Metric C4: National Research Awards

Goal: Teaching and Learning

Baseline Percentage: TBD

Focus: Reputation

Target Index Score: 10% increase

Definition: This metric is the number of discipline-specific awards for research received by College of Arts and Sciences faculty. These data will come from reports generated annually by the college's individual academic units.

Metric C5: Interdisciplinary/Collaborative Grants

Goal: Research

Baseline Percentage: TBD

Focus: Productivity

Target Index Score: 15% increase

Definition: This metric is the number of federal and private grants received by College of Arts and Sciences faculty that involve faculty from more than one Ohio State academic or research unit. The OSURF will be the source of these data.

Metric C6: Ohio Community Boards

Goal: Outreach and Engagement

Baseline Percentage: TBD

Focus: Outreach Programs and Engagement

Target Index Score: TBD

Definition: This metric is the number of boards, committees, task forces, etc. that faculty members serve as volunteers off campus in the State of Ohio. These data will come from reports generated annually by the college's individual academic units.

Metric C7: Media Exposure

Goal: Outreach and Engagement

Baseline Percentage: TBD

Focus: Programs and Awareness

Target Index Score: 10% increase

Definition: This metric is the number of media stories published that feature an arts and sciences faculty member as an expert and/or commentator. Data will be collected through the Ohio State's daily Media Relations publication.

Metric C8: Learning Technology Investments

Goal: Resources

Baseline Percentage: TBD

Focus: Facilities

Target Index Score: 20% increase

Definition: This metric is the number of dollars invested in technology that enhances faculty teaching and student learning on and off campus at all levels. These data will come from reporting annual expenditures for teaching from the college's Office of Information Technology.

Metric C9: Streamlining and Cost Savings

Goal: Resources

Baseline Percentage: TBD

Focus: Resources - Dollars

Target Index Score: TBD

Definition: This metric is the number of dollars saved through efforts to streamline administration and operations as well as other cost-cutting measures such as improvements in purchasing and procurement. The data will be collected annually from the college's services offices and consist of only documented dollars that result from streamlining and other methods.

Metric C10: Staff Professional Development

Goal: Resources

Baseline Percentage: TBD

Focus: Resources - People

Target Index Score: 25% increase

Definition: This metric is the number of staff members that participate in university or college staff development programs. The data will be obtained through annual reporting of all college units on staff professional development activities.



Strategic Plan

College of Arts and Sciences

Teaching & Learning Scorecard										
Provide an unsurpassed, student-centered learning experience led by engaged, world-class faculty and enhanced by a globally diverse student body										
Focus Area	Metric		2011 Baseline	2012	2013	2014	2015	2016 Target	Progress	
Incoming Student Quality	U1	Graduate Student Academic Quality Index	73.25	74.25	75.75	77	78.5	79.5		
Program Excellence	U2	NSSE Enriching Educational Experiences Score	44.3	44.3	45	46	47	48		
Program Excellence	U3	USNWR Graduate Ranking Among National Universities: ASC programs/specialties*	7 in top 10, 10 in top 15	7 in top 10, 10 in top 15	8 in top 10, 11 in top 15	8 in top 10, 12 in top 15	9 in top 10, 12 in top 15	9 in top 10, 13 in top 15		
Student Outcomes	U4	Post-graduation Outcomes Index	Metric under development							
Student Outcomes	U5	Undergraduate Graduation Rate	80%	81%	82%	83%	84%	85%		
Student Outcomes	C1	Student Experiential Learning Participation	85%	87%	88%	90%	93%	95%		
Program Excellence	C2	Interdisciplinary Majors/Minors Programs	X = programs in 2011	X + 2%	X + 4%	X + 6%	X + 8%	X + 10%		
Incoming Student Quality	C3	Top 10% Students	Metric under development							
*Total of 27 ranked programs/specialties for ASC.										

Research & Innovation Scorecard										
Create distinctive and internationally recognized contributions to the advancement of fundamental knowledge and scholarship and to the solutions of the world's most pressing problems										
Focus Area	Metric		2011 Baseline	2012	2013	2014	2015	2016 Target	Progress	
Reputation	U6	National Academy / American Academy of Arts and Sciences Members	6 / 15	7 / 15	8 / 16	8 / 17	8 / 18	9 / 18		
Productivity	U7	Faculty Scholarly Productivity Index Rating (highest and lowest ratings)	Data expected to be available after 3/1/2012.							
Productivity	U8	Total Research Expenditures	\$81,889,280	\$84M	\$87M	\$89M	\$92M	\$96M		
Productivity	U9	Commercialization Success Index	Metric under development							
Reputation	C4	National Research Awards	X = awards in 2011	X + 2%	X + 4%	X + 6%	X + 8%	X + 10%		
Productivity	C5	Interdisciplinary/Collaborative Grants	X = grants in 2011	X + 3%	X + 6%	X + 9%	X + 12%	X + 15%		



Strategic Plan
College of Arts and Sciences

Outreach & Engagement Scorecard										
Establish mutually beneficial partnerships with the citizens and institutions of Ohio, the nation, and the world so that our communities are actively engaged in the exciting work of The Ohio State University										
Focus Area	Metric		2011 Baseline	2012	2013	2014	2015	2016 Target	Progress	
Strategic Partnerships	U10	Industry Research Expenditures	\$1,892,702	\$2.5M	\$3.5M	\$5M	\$6M	\$8M		
Strategic Partnerships	U11	OSU Publications Cited by Industry Patents	Data expected to be available for 2013							
Strategic Partnerships	U12	Signed MOUs for Active State, National, and International	X = MOUs in 2011	X + 2%	X + 4%	X + 6%	X + 8%	X + 10%		
Critical Workforce Development	U13	% Students Completing an Internship	77%	79%	81%	83%	84%	85%		
Outreach Programs & Awareness	U14	Patients/Clients Served	1,512	1,525	1,550	1,575	1,600	1,625		
Outreach Programs & Awareness	U15	Enrollment in Non-credit Courses and Programs	Data expected to be available for 2013							
Outreach Programs & Awareness	C6	Ohio Community Boards	Data expected to be available for 2013							
Outreach Programs & Awareness	C7	Media Exposure	X = Media stories in 2011	X + 2%	X + 4%	X + 6%	X + 8%	X + 10%		



Strategic Plan

College of Arts and Sciences

Resources Scorecard										
Become the model for an affordable public university recognized for financial sustainability, unsurpassed management of human and physical resources, and operational simplicity and effectiveness										
Focus Area	Metric		2011 Baseline	2012	2013	2014	2015	2016 Target	Progress	
Resources - People	U17	Workplace Culture Index	72	73	74	75	76	78		
Resources - People	U19	Non-Retirement Turnover for Faculty	Metric under development							
Resources - Dollars	U20	New Fundraising Activity	\$19,184,662	\$25M	\$27M	\$30M	\$32M	\$35M		
Resources - Dollars	U21	Efficiency Metric	Metric under development							
Resources - Facilities	U23	Facility Condition Index	76.00%	77.00%	78.00%	80.00%	81.00%	82.00%		
Resources - Facilities	C8	Learning Technology Investments	X = \$ in 2011	X + 2%	X + 5%	X + 10%	X + 15%	X + 20%		
Resources - Dollars	C9	Streamlining and Cost Savings	Metric under development							
Resources - People	C10	Staff Professional Development	X = 2011 programs	X + 2%	X + 10%	X + 15%	X + 20%	X + 25%		