Office of Economic & Community Engagement: A Front Door For Connectivity in Eastern North Carolina and Beyond

Jennifer E. Jones, Merrill Flood, Carlyle Rogers, Annette Kariko, Keith Wheeler, and Angela Lamson

20th Annual Academic Library Services
Paraprofessional Conference
Friday, May 10, 2024
Joyner Library





Angela LamsonInterim Assistant Vice Chancellor for Economic and Community Engagement





Community Engaged Faculty & Staff Highlights



As a nationally recognized university for community engagement, ECU faculty, staff, and students are committed to engaged research, learning, and public service in partnership with counties throughout eastern North Carolina.

ECU's mission and vision are reflected through community engaged partnerships like the one featured on this card.







The Engagement and Outreach Scholars Academy (EOSA) is one way ECU is increasing the public's engagement with and access to educational offerings. EOSA alumna Dr. Emily Yeager has conducted eastern Tar-Pamlico Blue Economy Corridor, which work to grave the satern Tar-Pamlico Blue Economy Corridor, which Mount to Washington, NC. She met with local residents community, Inspired by everything that was happening the waterways in these communities, Yeager's members and organizations to use for research, purposes. The effort will aid their overall well-being by enhancing their quality of life.

GO.ECU.EDU/PIRATEPARTNERSHIPS



STATEWIDE PARTNERSHIP



DR. SY SAEED

Dr. Sy Saeed is helping to expand access to health care and wellness options by making telemedicine and telepsychiatry services more accessible across North Carolina, assuring patients receive timely specialized psychiatric treatment through the North Carolina Statewide Telepsychiatry Program (NC-STeP). NC-STeP connects more than 50 hospital emergency and health departments across the state, including Camden County, to provide psychiatric assessments and consultations through telemedicine technologies. The program seeks to reduce patient length of stay and costs, while improving patient care.

GO.ECU.EDU/PIRATEPARTNERSHIPS













Since 2008, East Carolina University has held the prestigious Carnegie Community Engagement Classification from the American Council on Education and the Carnegie Foundation for the Advancement of Teaching. This acknowledgement highlights the work the university and its partners do together in communities across the globe. The elective classification - based on voluntary participation by individual higher education institutions - involves data collection and documentation of important aspects of ECU's mission, identity and commitments.





















Continuing & Professional Learning that lasts a lifetime

Education





Provides dynamic, high quality, and accessible learning opportunities to enrich the lives of adult learners in eastern North Carolina and beyond.

CONNECT WITH US: CPE.ECU.EDU | 252-328-9198 Willis Building, 300 E. 1st Street



SERVICES:

- Career training
- *Workshops
- Microcredentials
- Continuing education units
- Trips and immersive events
- Conference planning



Our mission is to:

- Deliver professional education that is responsive to industry and workforce needs;
- Provide learning opportunities that improve quality of life for individuals and communities;
- Provide event management and course administration to allow clients to focus on content delivery.

Courses

- Coastal Studies Institute
 - K-12 Group Programs
 - Family and Community Programs
 - Summer Camps
 - CSI Exploring Oyster Ecology
- College of Business
 - 21st Century Leadership Program
- Dental Medicine
 - Intraoral Radiography Certificate Program
- Economic Development Academy
 - North Carolina Certified Economic Developer Program
 - Honors Seminar in Economic Development
- edTPA
 - Assistive Technology Foundations
 - Praxis Preparation
 - Online edTPA Support

- Glassblowing
- Health and Human Performance
 - Biofeedback 42-hour didactic Education Program
 - Heart Rate Variability 16hour certification program
- Nursing Education
 - Nursing Education Educator development





Courses

- Literacy Modules
 - Vocabulary: not just for language arts teachers
 - Reading with a pencil: purposeful annotation
 - Fluency: It's not just about pace
 - WORD UP: Enhancing vocabulary instruction
 - What's on the shelf? Tools for defining, choosing, evaluating and teaching diverse books
 - Beyond the bookshelf: I have Diverse books, now what?
 - Reading and Literacy for School Leaders
 - The struggle is REAL: Strategies to support Student's Reading Difficulties











LLP.ECU.EDU





Creative Arts
Culture & Religion
Health Aging & Retirement
History, Science, & Government
Technology
Literature
Special Events & Trips

EAST CAROLINA UNIVERSITY

Membership Benefits

- •Be among the first to receive the Lifelong Learning catalog each semester
- •Member exclusive courses and events
- •Discounted courses and events
- •Take part in educational programs and activities
- •Opportunities to teach/lead courses
- •Meet and network with other members
- •Opportunity to obtain an ECU 1Card
 - Access to services at Joyner, Laupus and Fletcher Libraries
 - Access to ECU Transit
- •Enjoy opportunities to volunteer



East Carolina Research and Innovation Campus

INNOVATION, DISCOVERY, SOLUTIONS

- Approved by UNC
 System Board of
 Governors in 2015
- 6 East Carolina
 University-owned sites
- Encompasses more than 500 acres spanning over 100 miles across eastern
 NC





CONTACT US: ECRIC.ECU.EDU



Merrill Flood

Director of Research and Innovation Campus
Development
FLOODM18@ECU.EDU
252-737-2256

"The Millennial Campus, which will be known as East Carolina Research and Innovation Campus (ECRIC), would be developed to enhance the research, teaching, and service missions of ECU by accelerating and expanding collaborative research, health sciences, teaching, and service to champion economic and community development for both Greenville and the region, producing innovations in education, science, technology, and the arts that address local and regional challenges while equipping the region with a magnet to attract talent and investment."

- UNC System Board of Governors, April 10, 2015

The assets of East Carolina University are being deployed to advance the economy of the region, and ECRIC provides focused hubs of capabilities that concentrate on regional needs. ECRIC's network currently encompasses six sites, spanning over 100 hundred miles across eastern North Carolina. Resources within each district and area are available to support research, discovery, innovation, entrepreneurship, incubation, manufacturing and commercialization.

COASTAL STUDIES INSTITUTE

Led by ECU, the Coastal Studies Institute (CSI) is a multi-institutional research and educational partnership of the UNC System. Located in Manteo, CSI focuses on integrated coastal research and education programming centered around the needs, issues, and concerns of coastal regions by bringing together the various disciplines of both the natural and social sciences.

HEALTH SCIENCES CAMPUS

ECU's Health Sciences Campus is home to the Brody School of Medicine, Colleges of Allied Health and Nursing, and the School of Dental Medicine. The Health Sciences Campus also encompasses centers and institutes of concentrated multi-disciplinary sciences and expertise in addressing the region's most pressing health care disparities.

UPTOWN CAMPUS AREA

ECU's Uptown Campus area provides a vital connection to the main campus with the Uptown Greenville and the Tar River waterfront. Several ECU administrative facilities are located in the area near ECU's Warehouse District holdings. These properties comprise a sizable portion of Greenville's Uptown/Center City area and position ECU to play a significant part in ongoing revitalization efforts in the city's urban core. ECU's comprehensive master plan considers a visual and performing arts center, conference center, and/or alumni center among the innovative options for this property.

GREENHOUSE CAMPUS

ECU's Greenhouse Campus is located in northeast area of Greenville and consists of one vacant parcel. The area is one of the newest additions to ECRIC's network. The vision for the parcel is for the development of a research greenhouse and adjacent field test site that advances the work of ECU faculty and student researchers with industry partners.

STRATFORD ARMS AREA

Stratford Arms campus properties are located adjacent to ECU's athletic and human performance complex. The undeveloped area represents longer term opportunities through public-private partnerships to develop a live, work and play complex supportive of the ECU athletic and performance assets. Existing buildings in the area include the Belk educational facility, several recreational soccer fields, and facilities maintenance. The area also connects to Greenville's Greenway.

WAREHOUSE DISTRICT

ECU is currently transforming its Warehouse District into the next phase of the expanding campus through a public-private partnership. The area is anchored by the Life Sciences & Biotechnology Building, which houses the Eastern Region Pharma Center. It also encompasses more than 22 acres of opportunities to restore and reuse valuable historic properties and accelerate reinvestment activities within Greenville's city center and arts district for collaborative research, innovation, and economic development.







INTERSECT EAST

A PACESETTER URBAN HUB





- Talent: Our students, faculty and researchers
- Innovation: University research, entrepreneurship and business programming
- Resources: Lab and collaboration spaces, entrepreneurship incubators and campus attractions





A rendering of what the town of Maysville, North Carolina's, main street could look like after revitalization efforts from an \$850,000 American Rescue Plan grant that was secured in part thanks to the work by East Carolina University students in the Community and Regional Planning Program. (Contributed graphic)



Small Business & Technology Development Center



Offers no-cost business consulting to local start-ups, small and mid-size businesses throughout eastern North Carolina. Our team of experienced business consultants provides confidential one-on-one support to help grow new and existing businesses.



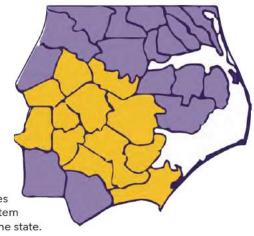


- 54 new businesses created
- 405 local jobs created/retained
- Over \$24.5 million in funding raised for new/growing businesses
- Increased sales by an average of \$34,864 for each client served

ECU SBTDC CONSULTANTS SERVE THESE COUNTIES:

- Beaufort
- Carteret
- Craven
- Edgecombe
- Greene
- Jones
- Lenoir
- Martin
- Pamlico
- Pitt
- Wayne
- Wilson

Additional SBTDC offices are located on UNC system campuses throughout the state.





HOW SBTDC SERVICES CAN HELP YOUR BUSINESS:



FOR EXISTING BUSINESSES

- Access to market research resources
- Business plan assistance
- Income and cash flow projections
- Loan proposal preparationAccounting and financial
- Accounting and financial management assistance
- Cash flow analysis
- Strategic Planning
- Data management assistance
- Marketing assistance
- Human resource planning
- Succession planning
- Business continuity planning
- · Social media marketing

FOR START-UPS

- Understanding credit requirements and lending expectations
- Access to market research resources
- Market feasibility analysis
- · Break-even and financial feasibility
- Business plan assistance
- Income and cash flow projections assistance
- · Loan proposal preparation
- Business entity selection
- Research on local, state, and federal regulatory requirements
- Marketing assistance
- Human resource planning

Contact us for an appointment:

300 E. 1st Street, Willis Building, Greenville, NC 27858 | ecu@sbtdc.org | 252-737-1385











Engaged Research

- The scholarship of discovery: the pursuit of inquiry and investigation in search of new knowledge.
- * The scholarship of integration: making connections across disciplines and Service advancing knowledge through synthesis.
- ❖ The scholarship of application: how knowledge can be applied to the social issues in a dynamic process that generates and tests new theory and knowledge.
- ❖ The **scholarship of teaching:** not only transmitting knowledge, but also transforming and extending it.
- The scholarship of engagement: connects the above dimensions of scholarship to the understanding and solving of pressing social, civic, and ethical problems.





Communityengagement@ecu.edu



Community engagement describes collaboration between institutions of higher education and their larger local, regional, state, national and global communities for the <u>mutually beneficial</u> exchange of knowledge and resources in a context of partnership and reciprocity.



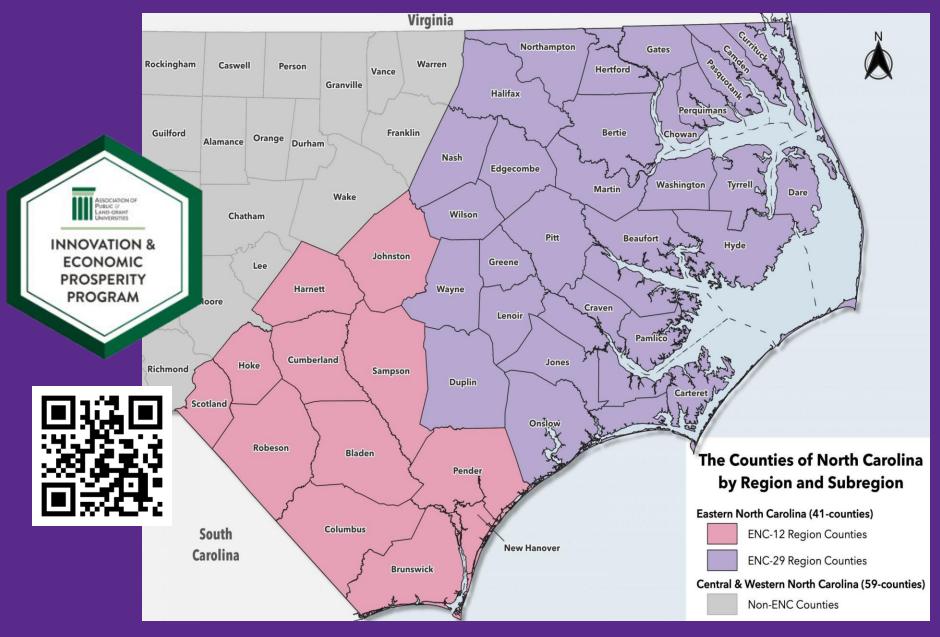




The purpose is the partnership of university knowledge and resources with those of the public and private sectors to:

- Enrich scholarship, research and creative activity;
- Enhance curriculum, teaching and learning;
- Prepare educated and engaged citizens;
- Strengthen democratic values and civic responsibility;
- Address critical societal issues and contribute to the public good.







The Engagement and Outreach Scholars Academy (EOSA)

Projects result in a culture of partnership, reciprocity, and high-quality scholarship. Faculty selected to the program participate in cohort-based workshops and develop a research project with their community partner.





- 143 Faculty since 2009
- 106+ Community partners
- 27 projects in eastern
 North Carolina since 2018

EOSA was created to increase the knowledge of, motivation for, and resource capacity in community engagement with external partners.





SECU PUBLIC FELLOWS INTERNSHIP

BUILDING TALENT, FORGING PARTNERSHIPS

Focuses on strengthening eastern North Carolina communities by bringing in talented, skilled students to work in professional internships.

Connects the university and regional communities through projects that address **community- identified priorities**.

Undergraduate student placements provide opportunities for fellows to develop leadership, analytical, problem solving, communication and project management skills, as well as allowing them to network in professional settings.



 176 students have completed internships with 78 organizations located in 22 North Carolina counties since 2015





RISE29 Entrepreneurship Program

Small business partners bring real problems to ECU that engage students in finding innovative solutions to their challenges.

Students conduct industry and market research, analyze data, and use critical thinking to bring new ideas to life. Along the way, the small businesses can make decisions that impact eastern North Carolina through job creation, job retention, and the strengthening of strong entrepreneurial networks.



- 175 completed internships
- 62 small business clients
- 18 startups
- 83 new jobs
- 19 new micro-enterprises
- 51,445+ field hours



















Purple and Gold Bus Tour





66

Engaging with ECU:

As an East Carolina alumni, nothing thrills me more than to see the Purple and Gold Bus come into my community not just because my heart is purple and gold but because I know the invaluable resources and potential partnerships that this tour brings. Through collective collaboration with the diverse faculty at East Carolina, Hyde County has been able to bring in resources to make our communities better places to live, work and play.

Possibilities for Partnership:

Hyde County's population is declining at a rate higher than most NC counties, which points to an urgent need for creative economic development opportunities. New economic development opportunities, ideas, and support for existing opportunities like the restoration and reopening of the historic Mattamuskeet Lodge would be of great benefit. Additionally support in creating more early childhood education opportunities, supporting our school age children and their teachers, and job creation could address the fact that Hyde County has the lowest percentage in the state of adults ages 25 to 44 with a postsecondary degree or credential.







Carlyle Rogers, PhD Director



Lucretia Davis
Business and IP
Manager



Mark Foley, MBA
Licensing Associate



Sirin Cakir, PhD Licensing Analyst



Grace Rains-Corps Project
Coordinator



Meet the Team



Dymon Pickett Criminal Justice



Brittany Trotter Bioenergetics



Rachel Bruns Engineering



Jacquelyn Moore Coastal Studies



Sara Lowe Microbiology & Immunology



Amber Faircloth
Communication
Sciences & Disorders

National Science Foundation I-Corps Innovation Ambassador

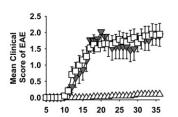


Do you have ideas or innovations that could have impact?















If those ideas could translate into products or services, do you know how to accomplish that task?













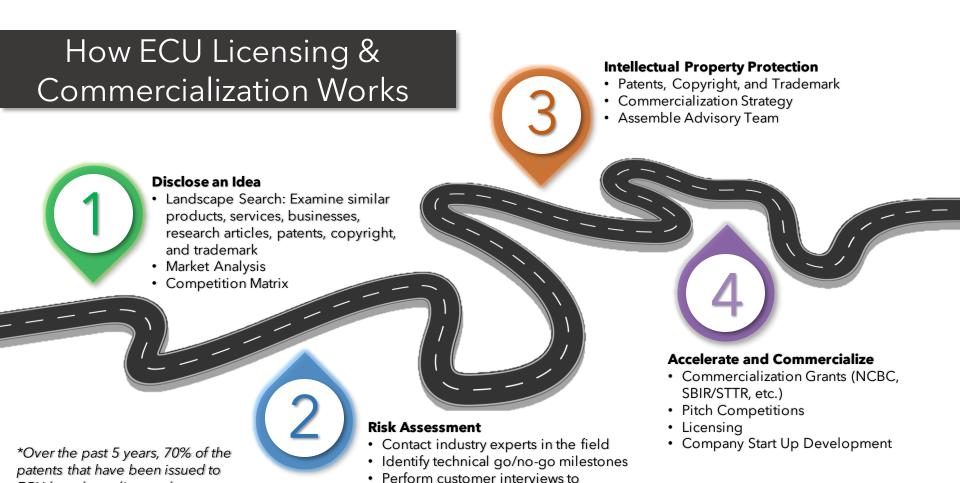
Core Functions

<u>Commercialization</u>: Accelerating the translation of ideas and innovations into products and services (Build process).

<u>Intellectual Property Protection</u>: The way we protect what is built, and what is licensed to individuals and/or entities (Protecting what is being built).

Licensing: Allowing individuals and/or entities to use university owned products and services (Paperwork allowing others to use what has been built).





determine problem/solution alignment

ECU have been licensed.



Licensing & Commercialization maximizes the societal and economic impact of academic research (Patents)



Dr. Stefan Clemens, Department of Physiology Dr. Kori Brewer, Department of Emergency Medicine

Emalex Biosciences Expands CNS Platform to Advance Treatment for Restless Legs Syndrome with Augmentation

March 1, 2022

 License agreement secures potential research of ecopipam for one of the most common neurological sensory disorders

Media Contact: Evelyn M. O'Connor, Paragon Biosciences

Startup with ECU roots wants to tackle opioid crisis with new therapies

Amalgent Therapeutics, which lists a Chapel Hill address in securities filings and just opened its main office in Greenville, was born out of ECU technology. The company could be three years away from getting its therapies to patients, said Malcolm Meyn, an academic-turned chief scientific officer.

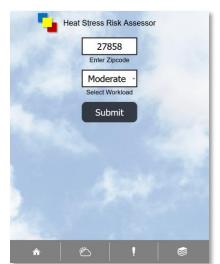
Media Contact: Lauren Ohnesorge, Triangle Inno



Licensing & Commercialization maximizes the societal and economic impact of academic research (Copyright)



Dr. Jo Anne Balanay, Department of Public Health





Development of an algorithm to assess heat stress based on workload and risk level. Algorithm was licensed to a non-profit that is developing a mobile application for industrial workers..



Licensing & Commercialization maximizes the societal and economic impact of academic research (Trademark)





Licensing & Commercialization maximizes the societal and economic impact of academic research (Material)



Dr. Robert Hughes, Department of Chemistry

Development of a biological reagent that has been non-exclusively licensed to several companies.

TEV HALO Magnetic Nanoparticles



- · Significantly reduces downstream protease contamination
- · Suitable for cleavage of affinity tags, identification of TEV sites in proteins, and activation/inactivation of engineered proteins
- . Active in multiple buffer systems (e.g., PBS; TBS; Imidazole)

Proteases with highly specific activities have applications in the purification and downstream processing of overexpressed proteins, including the cleavage of affinity tags and solubility promoting partners such as GST and MBP. However, proteases can be challenging to express and purify, and commercially sourced proteases such as TEV and 3C can be prohibitively costly.

From the laboratory of Robert M. Hughes, PhD, East Carolina University.



Licensing & Commercialization Support Programs





INNOVATION AMBASSADORS

MENTORSHIP NETWORK









CATALYST GRANT PROGRAM



LABORATORY LICENSING PARTNERSHIP PROGRAM





Four Takeaway
Messages of
ECU Licensing
and
Commercialization

We work with ideas and innovations from all stages, sizes, fields, and impact.

We believe in a hands-on and personalized approach to help you reach commercialization.

We advocate for a team approach to help you reach success and impact.

Engage with us early in the process







Innovation@ecu.edu
https://rede.ecu.edu/innovation/

Office of National Security & Industry Initiatives

CONNECTING RESEARCHERS WITH REGIONAL PARTNERS

Operates as a conduit through which researchers can connect with external stakeholders and align their interest with those of regional business and Department of Defense (DoD), Department of Homeland Security (DHS), and other federal partners.

Creates and strengthens ECU partnerships through regional engagement with industry, military, government, and economic/workforce developers to increase opportunities for students and faculty to provide value to partners and advance student success, public service and regional transformation.



- 26 Active DOD awards
- Record \$2.3 million in DODsponsored expenditures in FY23
- Record \$5.6 million in DODsponsored awards to date







ONSII helps facilitate faculty connections with a broad network, including:

Military-Civilian Medical Partnerships

We're strengthening ECU and ECU Health relationships with Naval Medical Center Camp Lejeune with an ultimate goal of training multidisciplinary medical personnel: physicians, nurses, EMTs and others. Military and civilian health providers will work together to enhance patient care through mutual training, sharing best practices and innovation.

Army XVIII Airborne Corps, 82nd Airborne Division Under the XVIII Airborne Corps - UNC System Educational Partnership Agreement (EPA), we work with 82nd Airborne Innovation Lab (AIL) and the Civil-Military Innovation Institute (CMI2) on specific project requests as well as

providing broad research and innovation expertise as needed.

Institute for Defense and Business LOGTEC Partnership

The Institute for Defense and Business (IDB) and ECU have entered a strategic alliance aimed at fostering innovation, research and executive education programs and projects. The first project includes providing The Center of Excellence in Logistics and Technology (LOGTECH) education programs to senior military personnel and Industry executives. LOGTECH is a joint collaborative venture designed to support the educational requirements and objectives of the U.S. Department of Defense and various private industries.

National Security Agency (NSA)

An EPA and Cooperative Research and Development Agreement (CRADA) are in place, enabling development of capstone projects with technology systems and computer science teams, subject matter expert presentations to faculty and students, and creation of a High-Performance Computing (HPC) concentration.

Each year, the NSA Laboratory for Analytic Sciences (LAS) brings together collaborators from three sectors - industry, academia and government - to conduct research that has a direct impact on national security. The LAS is always looking for partners to explore cutting-edge research projects.

ENC Aerospace Sector

Significant regional growth is forecast in this sector due to the military and civilian expansion in maintenance, repair and overhaul (MRO) operations. We can help you collaborate with partners like Fleet Readiness Center East (FRC East) - Marine Corps Air Station Cherry Point, Aviation Logistics Center (ALC) - USCG Station Elizabeth City, 4th Fighter Wing - Seymour Johnson AFB, NC Global TransPark (GTP) - Kinston, flyexclusive, Draken International, Spirit Aerosystems and the ENC NavalX Tech Bridge.

ENC Food Commercialization Center (ENCFCC)

The ENCFCC groundbreaking was in November 2022. The purpose of the center, located in Ayden, is to help growers and food entrepreneurs improve their access to the food commercialization sector. Once the facility becomes operational, we believe there are potential ECU connections to include nutrition, food science, marketing, packaging, entrepreneurship, processing innovation, and supply chain analytics.

ENC Pharma Manufacturing Sector

Eastern Region Pharma Center (ERPC) acts as the hub within the BioPharma Crescent connecting ECU, five community colleges, and over a dozen pharma companies in eastern North Carolina. It is committed to:

- Increasing pharma awareness and workforce preparedness of rural counties' young talent in ENC
- Increasing the numbers, opportunities, capabilities, and productivity of AAS and BS degree graduates
- Increasing ECU's readiness to re-skill, up-skill, and newskill incumbent employees of our pharma manufacturer

We can help you collaborate with partners like Thermo Fisher Scientific, Catalent, CMP Pharma, Novo Nordisk, Grifols, Pfizer, Merck, Frenius Kabi, Novartis, the NC Biotechnology Center, and the BioPharma Crescent.

Minerva Research Initiative

The Minerva Research Initiative supports social science research aimed at improving our basic understanding of security, broadly defined. All supported projects are university-based and unclassified and the goal is to improve DoD's basic understanding of the social, cultural, behavioral, and political forces that shape the world.









