

EPISODE SUMMARIES

STATE OF TOMORROW™
RISING CHALLENGES. HIGHER EDUCATION SOLUTIONS.

Episode 1 Length: 27 min. Rating: TV-G

PRESERVE AND PROTECT / 21ST CENTURY CANCER CARE

Will we have enough clean water to support Texas' increasing growth and future generations? *Preserve and Protect* travels from the High Plains to the Hill Country, talking to experts about preservation and conservation of our most precious natural resource. With exquisite cinematography of some of our most beautiful lakes and rivers, this segment focuses on a critical problem and on choices we must make.

Then, come to Houston to explore the latest innovations in *21st Century Cancer Care*. This segment introduces a world of technological and research breakthroughs — but more than

anything, it's the story of individual lives changed by disease and motivated by hope. You'll meet a teenage patient who's traveled from Knoxville, Tennessee, for a new treatment to help her preserve the quality of her life. You'll encounter an oncologist whose commitment to saving lives began with the loss of a childhood friend. *21st Century Cancer Care* offers an unforgettable glimpse at technological promise and human determination.

Episode 2 Length: 27 min. Rating: TV-G

DISASTER RESPONSE

Disaster Response highlights the little-known contributions of higher education in saving lives during the devastation of Hurricane Katrina — and its comprehensive planning for natural and intentional disasters in the future.

In this special episode-long program, Katrina survivors and rescuers speak about their hazardous experiences. Responders train for potential catastrophes and mass casualties at a site called Disaster City. From a Cold-War bunker beneath the city of Austin, the state's head of emergency management talks about his job description "to protect Texas from threats, natural or

manmade." Using satellite images, experts guide rescue efforts, predict storm movements and help evacuate endangered areas. A small East Texas city provides refuge for tens of thousands fleeing big cities along the Texas coast.

Disaster Response tells the vivid stories and hard-won knowledge from past disasters and higher education's collaborative efforts to limit damage and save more lives in the future.

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TORNADO ALLEY / MARINE SCIENTISTS

In Lubbock, the devastating tornado of May 1970 has never been forgotten. Twenty-six people were killed, 500 were injured, and more than \$530 million in property was damaged. In *Tornado Alley*, you'll see the commitment of higher-education researchers to improving building safety and saving lives before the next deadly twister hits our state. When you see a flying 2x4 smash into a normal — or reinforced — wall in their laboratories, you'll understand how dramatic the stakes are.

Texas' long coastline and beaches on the Gulf of Mexico have drawn visitors and commerce since the state's very beginnings. In *Marine Scientists*, we see the Gulf Coast through the eyes of marine researchers who are exploring the environmental health of this beautiful and vital area of our state. Today, over-fishing, reduced fresh water in-flow, and human encroachment are threatening the delicate balance of the Gulf's ecosystem. Find out what these scientists have discovered and the solutions they propose to preserve our coastline for generations to come.

Episode 4 Length: 27 min. Rating: TV-G

THE BEST AND THE BRIGHTEST / EYES IN SPACE

How can our country and state retain their leadership in an increasingly competitive global market? How will you, your children and your grandchildren fare in this fast-paced, rapidly expanding new world economy? In *The Best and the Brightest*, some of Texas' most thoughtful and provocative educators and leaders speak plainly about changes we must make in our educational system and in ourselves. As you will see, an innovative, competitive society must begin in our state's classrooms and homes, as the world alters around us.

In the isolation of the Davis Mountains in West Texas, scientists and educators explore the farthest reaches of the heavens. Looking through mammoth telescopes, *Eyes in Space* examines galaxies and asteroids, dark matter and the expansion of the universe. Learn about near-collisions with asteroids and the most fundamental questions of human existence, as astronomers take us far beyond our planet, solar system and galaxy.

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Episode 5 Length: 27 min. Rating: TV-G

HOMELAND SECURITY / HIGH-TECH WARRIORS / BIOSAFETY LEVEL 4

In quiet laboratories in College Station, Texas A&M researchers are pursuing ways to neutralize nerve gas, destroy toxins in our food supply, and prevent animal-disease contamination. *Homeland Security* tells the story of higher education's relentless efforts to keep our country safe.

Then, in *High-Tech Warriors*, watch robots communicate and cluster with one another on the UT San Antonio campus. They're learning to seek out hazards of our 21st-century world like improvised explosive devices — and will eventually take on jobs too dangerous for humans.

Meanwhile, *Biosafety Level 4* tells a high-stakes health and medical detective story with wily antagonists like West Nile virus and Ebola. Researchers at UT Medical Branch in Galveston are committed to protecting our cities and states from rapidly mutating viruses that come from nature — or human design.

Episode 6 Length: 27 min. Rating: TV-G

THE FAMILY PSYCHOLOGISTS / THINKING SMALL / FIGHTING OBESITY AND DIABETES

Ideally, a better, healthier society begins in the home. In *The Family Psychologists*, two noted experts from Texas Tech tell us why stable, nurturing families help determine the future of us all.

Thinking Small peers into the microscopic world of nanotechnology — the manipulation of materials at the molecular level. See how UT Dallas innovators are focusing on the creation of artificial muscles through nanotechnology in an effort that will one day rebuild bodies.

Across Texas and the nation, obesity and diabetes are combining to create a widespread health crisis that kills and alters lives. *Fighting Obesity and Diabetes* follows higher-education experts combating this deadly epidemic through education, research and better choices. A diabetes patient and her husband speak about their struggles with both illness and poverty.

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REBUILDING THE HEART / SKELETONS IN THE CLOSET

Heart disease is on the rise across the country, leaving its victims easily exhausted and susceptible to early death. *Rebuilding the Heart* enters University of Texas Health Science Center at Houston laboratories, where research specialists labor with adult stem cells to design a cure for failing hearts. Cardiac patients have come here to participate in research trials that may one day save their own — and tens of thousands of others' — lives.

In *Skeletons in the Closet*, University of North Texas forensic anthropologists reveal laboratory advances designed to prevent anybody from getting away with murder. From small-town crimes in rural Texas to the victims of 9/11 in lower Manhattan, higher education is playing a pivotal role in solving deadly mysteries.

Episode 8 Length: 27 min. Rating: TV-G

THE NUMBER CRUNCHER / FACES OF THE NEW TEXAS / EXPLORING NEW WORLDS

If you don't find numbers fascinating, you've never listened to state demographer Steve Murdock. He talks about population growth and shifts, people's movements into and out of the state, and Texas' most profound changes. Digit by digit, figure by figure, *The Number Cruncher* tells us the stories of our lives and our future.

With a great increase in its Hispanic population, Texas presages changes in the rest of the United States. In *Faces of the New Texas*, higher education experts discuss the need to offer college access to new generations in our state so we can compete with the rest of the country and world — particularly in math, science and engineering. A family encourages a first-generation

college student, while a UT El Paso alumnus speaks of his desire to extend the economic and educational opportunities he's found in his own professional life.

In *Exploring New Worlds*, underprivileged middle-school students take advantage of an innovative summer program sponsored by UT Medical Branch in Galveston that exposes them to architecture, science, literature and the natural world. Come along with them as they learn to see their neighborhood environment through different eyes.

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SHORTAGE OF NURSES / THE ECONOMIST / AGING WITH DIGNITY

The quality of our hospitals and healthcare depends on the quality — and quantity — of our healthcare workforce. *Shortage of Nurses* follows nursing students at two innovative programs designed to accelerate graduation and address the critical need for more healthcare professionals in our state.

In *The Economist*, University of North Texas economist Bud Weinstein explores the challenges facing our state and explains why he considers human beings the most important resource in our society.

Then, *Aging with Dignity* takes us into some of higher education's most innovative laboratories, where scientists and clinicians are tracking the intricacies of aging bodies and minds. Can we slow the crippling disabilities of age? Cure or better manage the cruel losses of Alzheimer's and other dementias? Patients and family members with little time and lingering hopes talk about a future facing a huge generation of baby boomers and those who will care for them.

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PASSION FOR JAZZ / THE BRAIN TRUST / THE PHILOSOPHER

A young musician joins The One O' Clock Lab Band, an elite musical group at the University of North Texas' famous Jazz Studies program. *Passion for Jazz* tells the story of this fabled department, whose alumni includes Norah Jones and some of the most successful musicians in the nation. Learn how profoundly music shapes its listeners, its participants, its creators and its society in this vibrant and brassy story.

Join some of the greatest minds in Texas in *The Brain Trust*. Every year, members of The Academy of Medicine, Engineering and Science of Texas gather to exchange ideas and share research findings. Their annual meetings break down traditional professional barriers and categories to forge more effective, wider-ranging collaborations to solve the greatest challenges we face.

Finally, the late Robert Solomon, a celebrated philosophy professor and author, talks about why philosophy is relevant to all of us. In this brief segment, *The Philosopher*, he discusses humans' search for meaning and belonging — and how this search profoundly affects our lives.

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SHADOW OF A DOUBT / THE NEW URBAN CENTURY / CREATIVE CAPITAL

Texas' prisons house 150,000 inmates. If the system is 99% accurate, there are still 1,500 innocent people imprisoned by mistake. Tune in to *Shadow of a Doubt* to learn about actual innocence programs dedicated to making sure that only the guilty serve time — and the innocent go free.

As modern-day Texas' population surges and becomes increasingly urban, the planning and design of our cities and transportation systems assume critical importance to our state's quality of life. In *The New Urban Century*, experts from UT Austin explore sustainable design, the forces that shape our cities and suburbs, and the relationship between the manmade environment and public health.

How relevant is art to our daily lives? To our society? A Texas State University art and art history professor, James Housefield, explore the convergence of art and life. In *Creative Capital*, he shows us how art is changing the way the world around us looks.

Episode 12 Length: 27 min. Rating: TV-G

CLEARING THE AIR / TO ERR IS HUMAN / VISUALIZING THE FUTURE

Clearing the Air focuses on a region and city determined to create a healthier environment for its citizens. Drawing on help from higher-education institutions, the City of Houston is committed to greatly decreasing its pollution without stifling its continued economic growth. Can the city designated one of the most polluted in the nation become a model for the rest of the country?

In the airplane cockpit or the hospital emergency room, effective group communication can save lives. UT Austin social psychologist Robert Helmreich talks about the interpersonal dynamics that can avoid — or create — disaster in *To Err Is Human*.

Video-game and movie animation are becoming blockbuster economic forces in the entertainment industry. In *Visualizing the Future*, you'll see what a new generation of talented students are creating at Texas A&M's visualization laboratories. Then travel to Texas cities to see this burgeoning new industry, where many of these students will one day work.

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THE FUTURE OF ENERGY

How can we sustain the energy needs of our own country — as well as the rapidly multiplying markets of developing nations like China and India? Higher-education experts across the state are working on new technologies to recover existing oil, alternative sources like nuclear and solar energy, and innovations like cleaner-burning coal plants. Find out what we need to do to satisfy our planet's growing thirst for fuel in *The Future of Energy*.