In Greek mythology, the hero Prometheus gives humanity the gift of fire and is rewarded for his pains by having his liver torn out daily, courtesy of Zeus’s eagle. The story inspired Michigan Tech students to create their own version, Stealing Fire. The performance combines the technical and artistic achievements of the Performer Flying class and the Audio Creative Lab with original student musical compositions, brought together in pantomime and dance. Pictured are the eagle, Courtney DeCramer, a biological sciences major from Greenleaf, Wisconsin, and University photographer Sarah Bird as Prometheus.
Huskies claim MacInnes Cup as 2012 GLI Champs

Michigan Tech claimed its tenth Great Lakes Invitational title at Joe Louis Arena last December, with a 4–0 victory over Western Michigan University. The Huskies’ Phoenix Copley became just the second goaltender in GLI history to post back-to-back shutouts. He was named the winner of the John MacInnes Trophy as the tournament MVP.

The MacInnes Cup, given to the GLI champion, is in the possession of the Huskies for the first time since 1980, when head coach Mel Pearson was a player.

“I’m enjoying this more as a coach. You realize you’re representing not only your team, but your university and community,” said Pearson. “I couldn’t be more proud of our guys. We went out, played as a team, and earned this. It’s special.”

Score! SDC to get a new video scoreboard

Michigan Tech’s John J. MacInnes Student Ice Arena will soon offer Huskies fans an enhanced viewing experience: a new, $615,000 video scoreboard is scheduled to be installed over center ice this summer.

Mitsubishi Electric Diamond Vision has begun building the custom four-sided scoreboard. Each side of the unit will measure approximately 15 feet high by 14 feet wide and will feature a main video screen as well as secondary viewing areas. Funding for the project came exclusively from private donors.

“Video boards are the standard in Division I hockey, and we’re thrilled to be able to make this enhancement to our fan experience,” said Michigan Tech Athletic Director Suzanne Sanregret. “We will be able to provide our fans with game replays, highlights, and information.”
Students find artistic powers in Winter Carnival’s frozen hours

The Incredibles animated movie was the inspiration for a winning statue in the 2013 Winter Carnival month-long competition. Phi Kappa Tau took first in the fraternity division for their heroic sculpture of mighty size and chiseled detail.

This year’s cool creations were based on the theme “Heroes and villains find their powers, in these frozen winter hours.”

Phi Kappa Tau’s incredible statue featured windows, chains, a mailbox, a baby in a high chair, and much more rendered in clear ice, which accented the larger scene of a superhero family working together to save the world.

Spring Career Fair: 1
UP blizzard: 0

Michigan Tech students weren’t about to let a snowstorm dampen their enthusiasm on Career Fair day. (After all, Blizzard is our mascot.) In true Tech spirit, students and employers alike soldiered on to the Student Development Complex.

Representatives of 203 companies and hundreds of students tenaciously braved the February blizzard that produced 40 mph winds and dumped twenty-plus inches of snow on Houghton in two days. Though classes were cancelled from noon on due to the weather, the Tech Facilities staff gave their all to clear the SDC parking lots and pathways. They also kept a shuttle bus running to get students to this all-important chapter in their Tech life.

When all was said and done, more than 2,000 interviews were scheduled.
For a fresh perspective on campus events, we’ve pulled lines from a few recent stories in the Lode to illustrate what matters to students, from a new co-ed rooming policy (with some unanticipated benefits) to a slated on-campus smoking ban.

“If we want to have a voice about what happens on campus, we cannot allow opportunities to voice our opinion pass by. This survey was posted in an email that is sent out every academic week to every student; 7,031 students had an opportunity to make their wishes known. Only 273 people did. Admittedly, I’m not one of them.”

Opinion editor Taylor Domagalla shocks us all by revealing why the student response to a campus poll fell one short of 274. The issue: should we have a pond on campus? (December 4)

“. . . there is no real suspicion that there was any foul play.”

Dan Bennett, director and chief of Public Safety and Police Services, in Lode News Editor Katelyn Waara’s article about a fire in the basement of the library that damaged archive records. (October 30)

“I look over notes, do practice exams, have review sessions and cry.”

Confessions of a stressed (or snarky?) college student. Katelynne Bauer, Lode reader, shares her finals study tips in the weekly “Ask Tech” column. (December 11)

“When girls live in the halls with guys, it helps make the place not smell as bad.”

Added perks for gender-neutral housing, which begins a trial run in some of Tech’s halls starting next academic year, according to student Allen Harrison in Lode writer Erika Vichcales’s article. (December 4)

“. . . the Libraries Saving Lives program attracted 107 visitors in two days. 32 of those visitors signed up to be organ donors . . .”

Lode writer Jane Kirby on the kindness of strangers (October 9)

Huskies defeat Wildcats at Miners Cup

A headline shouts victory in writer Jacob Shuler’s article about our rivals at that other school just down the road. (October 9)

“. . . the best viewing of the Northern Lights is from Alaska and Canada, but they can also be seen from the most northern parts of North America, including Houghton.”

Nicole Lutzi, Lode writer, shares tips after a spectacular multi-night lightshow and sent us to our globe to determine if Houghton is truly farther north on the continent than Nome or the Yukon. (October 16)

“It’s about time they clean up these streets.”

Lode reader Adam Tuff voices his opinion on the campus-wide tobacco ban taking effect next year. (October 23)
Block by block, a group of Michigan Tech students has laid the foundation for a campus world in Minecraft. This wildly popular computer-based video game lets players create almost anything using digital Lego-esque building blocks. The Minecraft Michigan Tech campus, coined “Tall World,” boasts models of four structures, meticulously built to scale: the Chemical Sciences and Engineering, Dow Environmental Sciences and Engineering, and R. L. Smith Mechanical Engineering–Engineering Mechanics buildings; and the Electrical Energy Resources Center. Additional structures are “under construction.”

Tall World’s digital semblance of campus is true to life. The Dow is complete with a rooftop greenhouse; a juvenile evergreen tree pokes through a patch of grass, with a sign proclaiming “EERC Tree” nearby; and the Portage Canal borders campus.

When asked how many hours have gone into the project, Ryan Brodowicz ’12, Tall World’s first administrator, answers, “Too many.” He estimates his involvement alone at 200–plus hours.

The project started with several computer networking and system administration majors chatting over the game and deciding to strike out on their own. “The initial rough rendering of the Chem Sci building took almost eight hours,” says Lucas Schill, who is credited with dreaming up Tall World. Since the original building shells were constructed in 2010, about ten other players have joined in the project. “It’s cool to have a 3-D simulation of the place where we spend so much time,” says Ryan Sears. “There’s nothing quite like having a gladiator-style sword fight with your friends on top of the MEEM.”

As the original members graduate, the group is preparing to pass along the Minecraft torches (which, in Minecraft, safeguard Tall World from the monsters that lurk at night). “Hopefully we can get some more people involved to finish the buildings’ interiors,” says Mario Loria.

Explore Tall World at psg.mtu.edu/minecraft
East of the dot-on-the-road town of Shingleton is a section of Highway M-28 known as the Seney Stretch. It is legendary among generations of Tech students, both for the stealthy state cops who patrol its twenty-five-mile length and for the bleak, swampy landscape it transects.

Few students speeding to their homes downstate along this gunshot-straight roadway know about the Seney National Wildlife Refuge. Bordering the Seney Stretch to the south, it is a picturesque haven for thousands of waterfowl. It is also the site of a bold experiment to return nature to the natural world.
Greg Corace ’07 wants to make one thing perfectly clear. Seney National Wildlife Refuge is not about common loons, or bald eagles, or even those greeting-card gorgeous trumpeter swans.

For Corace, head of the refuge’s applied sciences program, Seney is about Seney, all 95,000 acres and everything within. Willows, weasels, and snapping turtles stand no less tall in his estimation than the showiest water birds. What matters is the place as a whole and the forces that created it.

Had he been an ancient Greek philosopher, Corace might have said that Seney was born of earth, wind, fire, and water. But he is a twenty-first century scientist with a PhD in Forest Science from Michigan Tech, so his list is slightly different.

“Fire and water shape this landscape,” he says. “Then beaver.” More recently, humans have had their way with the Seney marshes. Now Corace and others, many of them colleagues at Michigan Tech, are attempting to reweave the intricate net of natural processes that was ripped apart during the last century.

His work began about ten years ago, around the time fellow PhD graduate Charles Goebel ’01 joined him for a walk on the refuge. “I remember Charles turning to me while we were walking the pine islands in the Wilderness Area and saying, ‘This is something special,’” says Corace. “That was about the time my superiors were saying they’d like to build a research program.

“I don’t think they knew what that meant.”

**A duck garden**

The part of Seney that most people see is largely a human construct. Called Unit 1, it was essentially designed as a waterfowl factory.

“All these large water bodies were created to produce ducks and geese,” Corace says as he drives the refuge pickup along the gravel road. It meanders among Disney-esque pools dotted with swans, wood ducks, and other wildlife. “They are functionally and spatially very different from our more natural water bodies, which are built by beaver.”

The pools had their beginnings in a manmade disaster. In 1908, speculators bought the Seney swamp in northern Schoolcraft County, attempted to drain large portions of it, and sold the acreage as prime agricultural property. However, what they were selling was not fertile Iowa loam, but peatland in a severe northern climate. Most of the farms failed.

In 1935, the federal government stepped in with the encouragement of the State of Michigan and
created what would be Seney National Wildlife Refuge, with the primary aim of nurturing migratory water birds, especially those ducks and geese. Over the next twenty years, the refuge built a complex system of artificial pools that now covers more than six thousand acres. Nearly half of those acres are in Unit 1, on the eastern end of the refuge. This is where the offices are and where visitors dawdle along the scenic drive to look at those photogenic common loons, bald eagles, and trumpeter swans.

When you put water in one place, however, you must take it from someplace else. The pools in Seney come courtesy of ditches and dikes that drained tens of thousands of acres of wetland, much of it in the other management units on the refuge, including the largest federal Wilderness Area on the Michigan mainland. More on that later.

“No way on God’s green earth could we ever build these pools today,” says Corace. “What much of our past management did was homogenize the habitats at Seney. Once upon a time, Unit 1 was a mosaic of habitats, with conifers and wetlands. We made it 90 percent water.”

Corace hastens to add that he’s not critical of his predecessors. “Our knowledge has changed, our goals have changed,” he says. “That was a totally different era.” And most of the pools in Unit 1 will stay: they are valuable for the myriad of migratory bird species that breed at the refuge or rest here during their seasonal journeys north and south.

“What words wouldn’t we use to talk about fire? Devastation! Catastrophe! Destruction! The fact is, houses may be destroyed, but acres aren’t.”

Trumpeter swans, re-introduced in 1987, thrive in the Seney National Wildlife Refuge.

Though it is known for water birds, Seney is also home to many upland species, including this spruce grouse, which was hiding from an osprey in the branches of a white spruce.

Beavers are both blessing and curse, for restoring wetlands and interfering with water management.
But in another part of the refuge, management is taking careful steps to reinstate natural processes that were disrupted over one hundred years ago.

**Don’t call it a controlled burn**

Smokey the Bear notwithstanding, periodic blazes define the Seney landscape.

Corace stops the truck and gets out to unlock a gate. We’re leaving the managed pools of Unit 1 and moving westward into Unit 2, where the refuge staff is carefully unleashing the primal forces of water and fire.

“This is the first view of the effects of this summer’s wildfire,” says Corace. Acres burned? “Three grand and change.”

Maybe it was a big deal when flames were licking at the tree trunks, but a few months later, Seney seems to have shrugged off whatever injury the fire inflicted.

“In the past, what words wouldn’t we use to talk about fire?” asks Corace. “Devastation! Catastrophe! Destruction! The fact is, houses may be destroyed, but acres aren’t. Red pine is almost impervious to fire.”

To prove it, he parks near a vigorous old pine nearly three feet in diameter that is almost entirely hollowed out by fire. “This gives you an idea of what these trees will take. That tree is still chugging along,” he says. “They are amazing.”

This red pine and others like it are fire diaries. Scientists can take a wedge out from the bark to the core, look at the growth rings, and date wildfires as old as the trees.

Corace began this fire history work when he was at Michigan Tech with his colleague Charles Goebel, who is now on the faculty of The Ohio State University.

“The first fire we have on our records was in 1592,” says Corace. “We discovered that over the last three hundred and fifty years, there were six landscape-scale fires here, of ten thousand acres or more. The only way we can tell this has been happening is because of big trees like this.”

The last landscape fire was in 1976. It blazed so hot and so deep that it took the next winter’s snows to finally snuff it out.

Most Seney fires aren’t that dramatic, and many are started deliberately by the refuge staff. “The only time you hear about fire is if something goes wrong,” he says. “It’s good for everything, as long as we burn within limits to which this system has adapted.”

But don’t call them controlled burns, Corace cautions. Fires are erratic. “Prescribed” is the preferred term, even in the safest conditions. “I’ve been on a prescribed burn where I’m in water up to my chest dragging a torch across it,” he says.
The prescribed burns nurture Seney’s native vegetation and wildlife and are part of Corace’s ardent effort to bring the marsh back to Unit 2.

“Refuges used to maximize diversity artificially through ponds and hay fields,” he says. Now, the trend is to work within Mother Nature’s natural range of variation. “The red pine and fire work together, a perfect example of an old-growth system that is less species-rich but which provides a natural range of diversity.”

He points toward an old snag across a pool with a tangle of sticks near the top. “You see that?” he asks. “That’s an osprey nest in a jack pine that died in a fire. There’s an example of the natural things working right. Here at Seney, we don’t have to do boxes or platforms to get birds to nest here anymore.”

This natural system has another advantage: it doesn’t support many invasive plants. An exception is glossy buckthorn, but refuge staff battle it using a protocol developed with Linda Nagel, an associate professor of forest resources and environmental science at Michigan Tech.

However, not all nonnatives can be dealt with so easily. Former Michigan Tech graduate student Lindsey Shartell PhD ’12 studied the area’s nonnative earthworms. “We can’t do anything about the earthworms, but what she learns will tell us what we can do with the forest,” says Corace.

**Pulling the thumb from the dike**

We have driven to the north end of Seney to meet up with Assistant Professor Tom Pypker. The Michigan Tech forest hydrologist is leading before-and-after studies to measure what happens when you start undoing the work of decades.

Seney is not unlike the Florida Everglades. Once, a miles-wide sheet of water flowed through the marshes slowly north to south nearly every spring during snowmelt, dropping ten feet per mile, bubbling through creek, swamp, and groundwater until it finally slipped into the Manistique River and, ultimately, Lake Michigan.

Then Seney was ditched, the pools were installed, and roads were built over dikes linking the bits of high ground. Called pine islands, these small, forested hills rise above the wet marsh and serve as refuges for dry-land critters and the occasional hunter taking a break from stalking through cattails in hip boots.

The dikes disrupted the flow of water across the landscape, creating dry and wet places where all was once various shades of soggy. We’re on top of one of the major offenders, which runs along the Driggs River.

“See how much higher we are than the surrounding landscape?” Corace asks. “They took soil from there and plunked it here to make this dike. That made these pools that we are trying to get away from. This is part of a broken process.”

That process is about to be mended. This summer, the refuge will begin poking holes in the Riverside Dike.

“It will flood the forest where trees have grown in and the water table has lowered,” says Pypker. “And it will allow natural species to come back upstream.”

Pypker and graduate student Meral Jackson are
collecting “before” data on the area, describing the hydrology around the dike, as well as the vegetation and how much carbon the area is storing. After the dike is breached and the water begins to flow again, they will track the changes.

Pypker is especially curious about a peatland that’s been divided for decades by the Riverside Dike. “Peatlands represent 20 to 30 percent of the Earth’s soil carbon, and only 2 to 3 percent of land cover,” he says. Restoring the natural flow of water to the area could boost its carbon-carrying capacity.

The Walsh Ditch, built between 1912 and 1915, was another big player in the draining of the Seney swamp. In 2002, the refuge staff plugged the ditch in several places, allowing the water to flood back out into the marshes. Pypker and graduate student Shawna Bork kept track of the region’s transformation. As the landscape has gotten wetter, pines that were growing on drained peat succumbed, and water-loving plants like willows and sedges have been moving in.

“It’s out of this world what’s going on there,” says Corace. “The pine islands are becoming pine islands again. And the beavers are back, helping the water to disconnect things and produce an intricate arrangement of wet and dry. And the wolves are back chasing the beavers around.”

Beavers are not uniformly beloved. “Here you have potentially the most important animal on the landscape, yet we don’t like them because they ruin our infrastructure,” Corace sighs. But even at Seney, the big rodents are a mixed blessing.

“In Unit 1, we are hard on beaver. They always want a lodge or dam where we don’t want it,” says Corace. “But out here, we love them.”

The re-emergence of beaver is just one of the changes that Seney National Wildlife Refuge is experiencing as it restores the processes that made the marsh in the first place.

“We’re putting heterogeneity into the landscape, putting chaos back into the system,” says Corace. “And the whole time, we are trying to be as humble as we can, because we don’t know what’s going to happen.”

Some things they do know: up the road from those loons, eagles, and swans, a pair of great gray owls is nesting, and an osprey built its home in a fire-dead tree. People did not plant them here. They chose Seney National Wildlife Refuge for themselves. For Greg Corace, there’s no greater satisfaction.
House cooks own a special place in the hearts of fraternity brothers. They are mostly women, and their home cooking helped generations of students through all the cramming, dating, partying, and other demands of Greek life at Tech.

We asked readers of TechAlum for memories, and one group’s response was overwhelming.

From 1957 to 1984, the brothers of Phi Kappa Tau enlisted the services of Laura Archambeau.

During her 27 years, she watched over 500 members (“her boys”), served 12,000 meals, and worked with 33 kitchen stewards, the liaisons between her and the brothers. For the men at 1209 West Quincy Street in Hancock, she was Mom.

"Unknowingly, she gave strength to our organization by just being there for so many years.”
—Marty Schendel '83

"Her favorite song was ‘One Day at a Time [Sweet Jesus].’ She was my surrogate mother during my parents’ divorce. There would be hell to pay if I missed turning on the ovens at 4:30 AM to cook the turkeys.”
—Mike Dustin, pledged 1974

"During her 27 years, she watched over 500 members (“her boys”), served 12,000 meals, and worked with 33 kitchen stewards, the liaisons between her and the brothers. For the men at 1209 West Quincy Street in Hancock, she was Mom.

The Mother of Phi Kappa Tau would walk to work wearing crampons when her 1968 Oldsmobile couldn’t make it up the driveway, which was often. Some days, the brothers admit, she would walk over the bodies to the abomination of a kitchen and just turn around in disgust and go home.

"Laura always sewed the crest on our fraternity jackets for us. Also, her husband, Ernie, would cut the blanks for our membership plaques.”
—Terry Kinzel, MD, pledged 1968
Laura’s leftovers were always waiting in the refrigerator for brothers returning from local saloons like the Monte Carlo, Golden Pheasant (aka the Duck), or Long Shot.

Laura’s specialties included “varnish rolls,” cinnamon rolls that the men summoned to the statue site, even after she retired. Chili was another cold-weather favorite that would keep the brothers working on their Winter Carnival statues, again continuing after her retirement.

Six kitchen stewards were called upon to serve as her pallbearers in August 1991. She died one day shy of her fifty-fifth wedding anniversary, at the age of 74.

In 2007, on the chapter’s fiftieth anniversary, the brothers placed a framed verse on her grave acknowledging her as “the dream girl of Phi Kappa Tau.”

Note: Phi Kappa Tau member Marty Schendel ’83, who delivered a eulogy at Laura’s funeral, provided material used in this story.

“Someone in the house used to rubber-band the handle to the sprayer on the sink, so when Laura turned on the water, the sprayer would squirt right at her. I could hear her screaming through the whole house.”

—H. Dave Fletcher, pledged 1967

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—H. Dave Fletcher, pledged 1967

“A number of times I drove her to Green Bay on break so she could visit her daughter and her family. It was just the two of us for four hours on the road—great conversation and wisdom from a special lady. I cried all day when I got the call in 1991 that she had passed on. I was honored to be one of her pallbearers.”

—Scott Cooper, pledged 1981
The redemption of Daniel Crowl

by Marcia Goodrich

Abandoned as a child, a professor discovers that a stellar career is not the same as a good life.

It was 1997, and Dan Crowl figured he was at the top of his game.

He’d written the book on chemical process safety, and he held the Herbert H. Dow Professorship for Chemical Process Safety in Michigan Tech’s chemical engineering department. His research was booming, and he was working night and day and loving it, or so he told himself. Then his world unraveled.

“My wife fell critically ill,” he says. “She had to have emergency surgery, and they said she had only a 20 percent chance of survival.”

Crushed by the thought of losing her and raising their seven-year-old son alone, Crowl did a very engineer-y sort of thing: he began to write a list of stuff that needed doing.

“And suddenly I started bawling,” he remembers, “and the room filled with bright light. Something reached out and touched me.”

Until that moment, Crowl had known precious little comfort.

“My early childhood was miserable,” he says. “I was abandoned by my parents when I was 13. There was a while when I didn’t know where I would sleep or eat.”

Almost fifty years later, he bears them no malice: “They weren’t prepared to be parents,” he says. “They divorced, and my brother, sister, and I were thrown to the four winds.” Eventually, he found a haven with his 75-year-old grandmother, but the experience chewed a black hole in his heart.

“And then, I was already pretty messed up, very reclusive,” he says. “I figured I could live without people, because they had caused me a lot of grief.”

Nevertheless, he threw himself into his studies. “I’d always wanted to go to college, so I did well in school. I was a straight-A student because I wanted to give myself value,” he says.

It worked, at least on one level. After earning a PhD from the University of Illinois at Urbana-Champaign and working two years for a paper company, he joined the faculty at Wayne State University. Now married with a young son, he was merrily teaching and conducting research when he found himself in a tight spot.
“I was suddenly confronted with a summer when I didn’t have any research funding, and I had a family that needed to be fed,” he says. “I was telling my woes to a friend at [the chemical corporation] BASF, and he told me I could work there.”

Crowl almost said no. Work started at 8:00 am sharp an hour’s commute across town, “and I knew they’d work me hard,” he says. “But I did it anyway. Then I saw all the safety stuff they were doing, and the scales fell from my eyes.

“I had degrees from some of the best universities in the world, and I realized that there was a huge segment of the industrial world—safety—that had never been discussed in my academic experience.”

So he decided to offer a course on chemical process safety at Wayne State. It would address safety programs in chemical plants, where hazardous chemicals are present in very large quantities, making safety programs highly challenging. There were no such textbooks to be had, so he and his friend from BASF, Joseph Louvar, wrote their own. “It was a huge amount of work,” Crowl remembers. “No one had ever done it before, and we struggled just to put an outline together.”

They published *Chemical Process Safety: Fundamentals with Applications* in 1990, followed by editions in 2001 and 2011. About 30,000 copies have sold, and it has no competition. “The publisher is delighted,” says Crowl. “There are no other chemical process safety texts on the market.”

Crowl’s research on the nature of explosions really caught fire after he came to Michigan Tech, in 1993. His first task was to work the kinks out of industry’s traditional tool for characterizing flammable liquids and gases, called a twenty-liter sphere. The data from experiments using the twenty-liter sphere save lives; industry uses the results to design systems that can prevent or mitigate explosions.

The problem with the twenty-liter sphere was that it didn’t work all that well. “People were getting different results, so we set about figuring out why,” he says. Turns out, there were a couple of reasons, both related to the garbage in, garbage out postulate.

“They were using el-cheapo, low-purity lab gases, and you have to use ultra-high purity to get consistent results,” says Crowl. “And some people were using plain air out of the lab, but when you bring air in you bring in humidity, and those variations make a difference.” Crowl’s group also replaced the ignition system with a simpler mechanism that now gives very reliable results. “It’s what everybody is using around the world now,” he says.

What’s next? Math. “Now that we have all that high-quality data from a single apparatus, we can look at theory,” he says. “If you have a theory, you can reduce the amount of data you need.”

Crowl has big-time theoretical street cred. Back in 1891, Henri Louis Le Châtelier devised a principle for determining the concentrations of flammable gas needed for it to ignite. Unfortunately, Le Châtelier’s principle is not totally reliable, because it’s based on experimental data. After tracking down Le Châtelier’s original paper and translating it from the French, Crowl’s group developed a mathematical theory to fit the data.

“We found out why it works and why it doesn’t work,” said Crowl. “If you look at our paper, it looks like it took ten minutes to write, but it took ten years to really figure it all out. But we did. I always knew there had to be a theoretical derivation.”

Crowl continues to do lab safety education and outreach and consults with universities that are bringing process safety into their curricula. But
his greatest professional satisfaction comes from discovering something new about the behavior of flames and explosions and sharing that excitement with his students.

“My grad students will come in and say, ‘I just found this out,’ and, I say, ‘Do you realize this is the first time the world has ever seen this?’ And when they do experiments and find the data doesn’t fit the theory, they are all dejected, and I’m dancing. Because if the data fit the existing theory, what do we have to offer? Now, there’s a huge understanding leap that’s going to happen.”

“I’m continually amazed at how much is missing,” he says. “There’s a huge amount that needs to be done. People have been working on flammability since the 1920s, and they’ve still left lots for me to work on, big holes to fill.”

He is still bemused to think that his career happened by accident, when a friend offered him a summer job. “I’d thought safety was no more than hard hats and safety shoes. I didn’t realize there was this huge fundamental basis for all this,” Crowl says. “That summer at BASF turned out to be one of the most wonderful things that ever happened to me.”

At the time, Crowl had a shortage of wonderful things to hang his hat on. Despite his professional success, he remained haunted by the ghosts of his childhood.

“The only way I could get rid of the despair was by working and drinking,” he says. “I ended up being an alcoholic. And the reason I got into academia was because of my other addiction: work. That’s a harder cycle to break than the alcohol, because it looks so good, and you can’t just quit it because you have to work to make a living. But really, it’s obsessive-compulsive.”

“I was trying to give myself value, and fundamentally there’s no real value to be had. I could never do enough, my work could never be perfect enough. And in the end, that convinces you that you can’t succeed. When people realize that, that’s when they do themselves in.”

Crowl broke his obsession in time. Now, he works eight hours a day, Monday through Friday, and devotes the rest of his time to his personal life. It can be challenging in academia, an environment greased by midnight oil, but he does it by strictly managing his time and eschewing distractions.

“People brag about being up at four in the morning, and to me that’s a failure. There’s no peace and serenity in that,” he says.

It took five years of counseling for Crowl to work through his past and his addictions.

“That’s hard,” he says. “When I revisited my past with my counselor, it was painful, but I am really grateful now, surviving all this.”

Life is good now—yes, his wife did make it through the surgery—but it’s not easy. “I still struggle because as a child my family was stolen, and I’ll never have it again. It was especially tough when I married and had a kid, because I didn’t know how to be a husband or a parent,” he says.

Fortunately, our son has turned out to be a nice young man. If your family fails, you don’t have a frame of reference.”

In truth, he has constructed his own frame of reference, in part through his involvement in a twelve-step recovery program, backed by his faith, and fueled by that encounter with the light.

“Whenever I’m in trouble now, I go back to that.”
Faking it

Tech theater students master the art of illusion

by Jennifer Donovan

Each year, students and professionals who work in theatre technology—sound, lighting, costumes, stage effects—gather at the United States Institute for Theatre Technology (USITT) annual conference. Many submit posters about their work. Few are chosen, even fewer by students.

This year, four Michigan Tech students applied, and all four were accepted. They presented their costume designs and stage effects at the USITT Conference in Milwaukee in March, right alongside presenters who have been working in theater for years.

“Each year, there is usually one, maybe two student presentations, ordinarily by graduate students,” says Mary Carol Friedrich, associate professor and director of theatre design and technology programs at Michigan Tech. “That our students, all undergrads, were chosen to present speaks to the strength of the very practical and professionally relevant work they are doing in the degree programs in the visual and performing arts department.”

A bent for swordsmiting

The props-master wanted the murderer to stab his victim right through the chest. Face-on to the audience, with a three-foot sword. The play was a murder mystery, after all. But she had no idea how to stage that bloody effect.

“Hmm,” said Matt Willett, a Michigan Tech theatre technology student who had dabbled in magic when he was in high school and had seen a sword trick or two. “I have an idea.”

So he fiddled with two flexible metal tape measures, cutting them to the right length and sanding them to a point at one end. Then he sanded off the numbers, glued them together, and wrapped them in clear packaging tape. What emerged was a sword blade that looked like solid metal but bent when pressed against something firm—like an actor’s chest.

A costume design student helped Willett fabricate a flexible sleeve made of house siding. The sword slipped from sight into the sleeve—camouflaged by an ornate belt—when the victim was “stabbed,” and voilà: a fatal sword-stabbing on stage.

Willett’s teacher, Assistant Professor Kalen Larson, was so impressed with Willett’s creation that he invited the student to write a paper about it with him.
OMG! From wet head to up-do in five minutes

Elizabeth LaRouche’s poster on hairstyles of the 1940s grew out of a problem she solved during a 2011 production of South Pacific.

As Nellie the nurse sang “I’m Gonna Wash That Man Right Outta My Hair,” the actress actually washed her hair on stage. Problem was, then she had wet hair, and the very next scene called for her long, blonde hair to be tucked up elegantly on her head.

So LaRouche suggested they dry the top layer of hair during the scene change and pin the rest up wet, covered by the dry hair. It worked.

“It was an easy fix for a common problem,” says LaRouche, who is majoring in theatre and entertainment technology major with an emphasis in costume design.

“I did a lot of research on 1940s hairstyles for that show,” she explains. She applied that research to styling wigs for Musical Comedy Murders of 1940, the same show that featured Willert’s sword. It’s that research, along with the wet hair/dry hair trick, that she presented at the USITT conference.

Elizabeth LaRouche, who is from Gaylord, is working as costume shop manager in the Department of Visual and Performing Arts.
Sew faux: painted embroidery for the Shakespearean stage

Katy Ellenich learned about Elizabethan blackwork embroidery during a costume history class, and she fell in love with the delicate black stitching on white that decorated dresses of that era. “But it takes so long to make,” she says, “and it’s too small to be seen from the stage.”

How could she enlarge the blackwork scrolls and swirls but still have them look authentic? And cut down the tedious handwork of embroidery?

Ellenich, a Calumet native who worked at the Calumet Theatre all through high school, came up with an idea. “Why not use white fabric printed with a black design?” she suggested. “It looks like blackwork, only bigger, so from the stage, it should look just right.”

And so it did. Her poster for the USITT conference compared real blackwork to its cloth cousin. She also brought samples of blackwork and blackwork-looking cloth that she had made for conference-goers to see and touch.

Ellenich knew she wanted to study theater when she came to Tech, but sewing had not occurred to her. After she encountered her first sewing machine in a costume construction class, she enjoyed it so much that she decided to pursue a theatre and entertainment technology degree with an emphasis in costume design.

She’d like to work on athletic mascot costumes. She’s already taken needle and thread to Blizzard T. Husky’s clothes, to help them fit better.

She’s also doing a theatre management concentration, hoping to find a theater job that won’t take her too far from home. “I might consider going as far as Chicago,” she concedes, “at least for a few years. But then I want to come home.”
Making every new glove old again

For Morgan Nelson, it all started with recycled mittens. Once she’d figured out how to sew thick old sweaters into mittens that fit, she moved on to gloves. “I love gloves,” says Nelson, a third-year costume design student from Cadillac. “I think they are the neatest things ever. They are such an under-appreciated accessory.” And why vintage gloves? “They fascinate me because people don’t wear them anymore.” Nelson has been known to paw through thrift store bins, hoping to unearth a pair dating from the era of seamed stockings and de rigeur hats at church.

When she came to Michigan Tech, Nelson enrolled in general engineering because she enjoyed a machining class in high school. Her introductory courses weren’t a good fit, but then she took a backstage technology class and fell in love. “It was so hands-on, so interesting,” she recalls.

So she switched to theatre technology, but at first she resisted costume design. Nelson’s mother, who quilts for a living, had taught her to sew, and “I loved sewing so much; I didn’t want to ruin my passion,” she explains.

Now she is making vintage gloves for stage use. One challenge is finding ways to machine-sew intricate designs that once were done by hand. Another is finding simple tricks to make gloves look like their antique counterparts—gluing on decals or sparkly beads, for example. “It’s all about what reads from stage,” Nelson says.

Her poster for the USITT conference involved tips and tricks for making vintage-looking gloves quickly and easily.
Painting for justice

by Marcia Goodrich

Miguel Levy is a mosaic: a physicist who loves to paint, an atheist who honors his Jewish heritage while harboring a deep sympathy for the Palestinian cause.

“For a long time, I’ve been interested in questions relating to the struggles of people for their rights, and my Jewish background leads me to be sympathetic with people who are being discriminated against,” says the Michigan Tech professor. “The Jewish people have been victims of racism over the ages, so it’s just shocking to me that with that background, Israel is committing so many injustices against Palestinians.”

Injustice motivated nearly all of the paintings displayed in Levy’s exhibit, The People Respond, which was shown this winter at the Rozsa Center for the Performing Arts. And while a number of Levy’s works address the Palestinian struggle, his paintings also deal with other popular uprisings, including the Newark rebellion of 1967, the 2011 Occupy movement, and others.

Levy isn’t a born activist, but he was drawn to painting as a child in his native Peru. There, his mother nurtured his gift by retaining a talented Argentinian artist to paint with him regularly and give advice. It wasn’t until after he came to the US for graduate school that he developed a political sensibility.

“I was aware of what was going on, but I was happy in my ivory tower,” he said. “Then I began to feel that a human being shouldn’t be one-dimensional: I became aware that we are social beings, and we have to be responsible for other people.”

He started participating in demonstrations, which inspired his art. However, most of his paintings are based on photographs that appeared in news media, including Free Gaza, perhaps his favorite work. Using intense colors and textures, Levy injected drama and poignancy into this portrait of a Palestinian woman, which is actually based on a composite of photos.

Though Levy specializes in the esoteric field of photonics, he has no trouble reconciling his research and his painting.

“There’s a lot of art in science,” he says. “Quantum mechanics is beautiful, Maxwell’s equations are beautiful, relativity is beautiful.”

Levy’s art carries its own type of beauty, not only because of his skill as a painter, but also because it powerfully expresses the courage of his subjects and his own philosophy: “You shouldn’t just do things for yourself,” he says. “We can’t escape caring about other people.”

Miguel Levy paints about injustice wherever he sees it. Top to bottom, his works illustrate courtroom bystanders denouncing the acquittal of New York policemen accused of murdering Michael Stewart, in 1985; the Newark Rebellion of 1967, in which local residents protested police brutality and overall discrimination; and Free Gaza! a composite portrait of a Palestinian woman.
Letters to the editor

Remembering the 1962 championships
Thanks for another great issue of your magazine. Regarding “The Boys of Winter”: I drove nonstop to Utica, New York, from my home in Plymouth to see the final game of the 1962 NCAA Championships, fully expecting to see Tech play the University of Michigan. What a surprise to see them play Clarkson. Then another all-night drive home. That was a great team with a great coach.
I’m leaving in one hour to see Tech play U of M once again in the Great Lakes Invitational, hoping for an upset.

Stewart Oldford ’56

P.S. We are privileged to have another great coach, and for God’s sake don’t give him back to the Big Blue.

Editor’s note: Tech did upset U of M in the 2012 GLI, winning the tournament for the first time since 1980, when head hockey coach Mel Pearson was a Huskies player.

A survivor’s story
I wanted to let you know that I was really touched by your recent piece in the Michigan Tech Magazine (“A Survivor’s Story,” winter 2012–13). Bob Peterson’s life story was fascinating adventure reading, but I was particularly interested in the summation at the end. He dismisses a chest full of medals that were clearly earned by displaying courage in situations that most of us can’t imagine, and focuses on how fortunate he felt in his marriage and family. His devotion to his wife and his appreciation for their time together really spoke to me. Thank you so much for sharing this moving biographical sketch with us; it makes me even a little more proud of the legacy of Michigan Tech.

Steve Hahn ’82 Chemistry
San Mateo, California

Regarding the article “The Boys of Winter” you cannot say enough good about Coach MacInnes. I had the privilege to know him. He was much more than a fine coach.

Michael E. O’Neill ’60
Springfield, Virginia

Editor’s note: Bob Peterson ‘49 passed away peacefully at Omega House on March 9, six months to the day after his beloved wife’s death there on September 9. He was buried at Arlington National Cemetery.
From the Alumni Association

MTUQ&A

Jennifer (Felmlee) Bigelow '97
Environmental Engineering

Tell us about your activities as Michigan Tech alumni overseas.
Since moving to Thailand, my husband, Marc ’98 and I have been involved with graduate student recruitment, led by Jacque Smith, the director of graduate marketing and advancement and the life director of the Michigan Tech Alumni Association. We’ve met many other Michigan Tech alumni in Thailand, and it made us realize just how small the world can be and how friendly Michigan Tech alumni are across the world.

How did you both end up in Thailand?
Through General Motors. I was assigned to work in a new diesel engine plant, where I am the manufacturing director. My work as an international employee is very different from my previous GM assignments. I am playing a much larger role coaching and developing and at the same time gaining so much from the team here, who are very new to the automotive industry, particularly compared to the US market. Marc is also working in Thailand, as a product engineer with the Chevrolet Truck programs.

What has surprised you most about Thailand?
It has been such a rewarding experience, both professionally and personally. The cross-cultural experience provides the company many benefits, and we are also seeing global challenges firsthand. We have two small children, Lucas, 5, and Alexis, 2, and living abroad has exposed them to a much richer cultural life.

We are all adjusting to the tropical weather. It feels like eternal July and August, but we are embracing this country and all the new experiences. Our son enjoys our trips to Phuket, Thailand, where he and his sister swim in the big waters of the Andaman Sea and ride elephants.

What was the most important thing you learned in college?
To not be afraid of problems, even to welcome problems. They are opportunities to learn.

Tell something people would be surprised to know about you.
My favorite thing to do for relaxation is to take hikes with our golden retriever, Daisy. It’s amazing how a walk in the woods with a four-legged companion can be so peaceful.

Alumni Association News

At the Winter Carnival meeting of the Alumni Association Board of Directors, a new leadership team and six new board members were welcomed.

Executive Committee: Darnishia L. Slade ’98, president; Paul J. Ninefeldt ’96, past president; Daniel F. Batten ’88 ’90, vice president; Robert G. Wojcik ’91, treasurer; Lisa A. Fernstrum ’91, secretary

New directors: Charles G. Heiden ’80, SherAaron N. Hurt ’09, Kerry A. Irons ’72, Jason J. Manders ’00, Denise A. Slattery ’94, and Kevin J. Walker ’02

The board approved the following initiatives:

• support for the Alumni Way project
• continued funding for the Traditions of Giving Scholarship for undergraduates and the Traditions of Giving Fellowship for graduate students
• continued funding for the Student Initiative Sponsorship program to assist groups with activities that support the Alumni Association mission: “Celebrating Traditions. Creating Connections.”

Funding for these programs comes from investment earnings generated by an endowed fund of the Michigan Tech Alumni Association. This endowment has been made possible by the generosity of alumni and friends.

Save the date
Alumni Reunion 2013, August 1–3

Make plans to catch up with fellow alumni and rediscover campus during Alumni Reunion 2013. Although all alumni are welcome every year, the featured groups for 2013 include the Classes of 1963, 1973, 1983, 1988, 1993, 2003, the Golden Ms (those who graduated fifty-plus years ago), and the Women of Michigan Tech.

A variety of activities for all ages will be offered, including Tech Talks, family activities, campus tours, seminars, the pasty picnic, and much more.

For a preliminary schedule, lodging information, and to RSVP, visit www.mtu.edu/reunion.
### Alumni Events

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<th>Green Bay, Wisconsin</th>
<th>Green Bay golf outing</th>
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<td>May 22</td>
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<td>May 30</td>
<td>Raleigh, North Carolina</td>
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<td>Baltimore</td>
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<td>Traverse City</td>
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<td>St. Paul, Minnesota</td>
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<td>Chicago Chapter student send-off</td>
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<td>West Michigan Chapter, Huskies vs. Grand Valley football tailgate</td>
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Events are being planned in other areas around the US. Check out our website for up-to-date listings of regional alumni events, www.mtu.edu/alumni. A number of chapters also have regular networking events for area alumni. Join your chapter’s Facebook page for details.

### Survey results: Thanks for your feedback

In January, more than 3,000 Michigan Tech alumni shared their views on Alumni Association programming and how we can provide additional opportunities for engagement.

Overall, alumni activities received good ratings, but Alumni Reunion and the Huskies athletic pregame events had the highest participation and satisfaction ratings at 4.01 and 4.19 (of 5) respectively. Pub nights and golf outings, pasty dinners, K-Day–style picnics, and new student send-offs also had satisfaction scores over 4.0.

More than 80 percent of respondents read the *TechAlum* e-newsletter more than six times annually with a satisfaction score of 4.28 (of 5). About 40 percent of respondents used the alumni social networks with a satisfaction score of 3.83 (of 5).

Each completed survey generated a $5 donation to the Alumni Association’s Student Initiative Funding program, which supports student organizations. In the past two years, this program has supported Blue Key, Pep Band, MTSF-Oozeball, Women’s Leadership Council, Keweenaw Pride, Advanced Motor Sports Enterprise, and LeaderShape, among others. The fund now has $15,055 to support student initiatives.

Survey participants could also enter to win an iPad mini. The lucky winners were Tricia Sebes ’96, Melanie Nizzola ’04, Scott Thayer ’90, and Christina Kionka ’72.

If you would like to provide more feedback or help with events in your area, contact us at alumni@mtu.edu. More results are available at www.mtu.edu/alumni.
Share your Tech memories

The Memories website has a new look and features that make it even easier for alumni and friends to share their Michigan Tech memories and upload photos.

The site, originally launched in 2010 for Michigan Tech’s 125th anniversary, contains stories about campus life and adventures in the Keweenaw from the 1930s right up to today. You can search for stories either by topic or decade and read what others have posted.

Take a moment to share your memories at www.mtu.edu/memories.

New insurance benefits

Your Alumni Association is happy to make these discounts available to you. These collaborations also support a wide range of programs for students and alumni.

5–10% discount on ASPCA pet insurance

Protect your pet’s health and save with a discount on ASPCA Pet Health Insurance. Save even more with a 10 percent multiple pet discount, if you qualify. ASPCA will reimburse up to 90 percent of covered vet costs (any licensed vet in the US and Canada) after a $100 annual deductible per pet. Learn more at www.aspcapetinsurance.com/mtaa or call 1-877-343-5314.

Long-term care insurance

Do you worry about paying for nursing home or home health care if you need it down the road? Many Americans do. But you can lay that fear to rest—and stay more in control of your health-care decisions—with a long-term care insurance policy. You can access top-rated plans at discounted rates though the Alumni Association. Learn more at www.TheAIP.com/michigantech or talk to a representative at 800-922-1245.

Check out other group insurance offers at www.mtu.edu/alumni/benefits.

Join the conversation in the Alumni-Student Professional Networking Group

You can help Michigan Tech students advance their careers by sharing your own experiences.

The Alumni Association’s newly formed LinkedIn Alumni-Student Professional Networking subgroup makes it easy for alumni and students to get in touch. The group is a great way to stay connected while sharing your knowledge, and we encourage you to join.

Students have already posted some great questions, so get involved and join the conversation.

To learn more, visit www.mtu.edu/networking or call us at 906-487-2400.

From the Alumni Association

This was my first time in Alaska, and it was a blast! You’ll love the Alaskan’s love of nature, adventure, and exploration. I’m a first-time skier, and you’ll see that I have no fear of heights or thrilling adventures—just a love for the great outdoors.

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Check out other group insurance offers at www.mtu.edu/alumni/benefits.
You betcha! We were student janitors at Coed Hall. Talk about a romantic meeting! Our first date was at the Midway Lounge in Hancock and 32 years and 3 MTU-grad-offspring later, she is still my Valentine!!

I too met my wife for the first time in Coed Hall. I heard some music I liked coming out of one of my friend’s rooms at the end of third floor and promptly jumped through the door landing in my dorkiest Superman pose. It is there I was instantly love struck. My friend introduced us, she ignored me, I pestered her, and 18 years later she still sees fit to be my wife. I’m certainly the lucky one.

Love at first sight, literally, in the Wads cafeteria. Took us 12 years to give in to each other and admit it.

Yep, grew up four miles apart. Drive 570-some miles to Tech to meet. He’s class of ’89, I’m ’91. Married 22 years this April!

My husband and I were soils lab partners. On our second date we went to our lab instructor’s for a party, and on the way out the door in the wee hours of the morning he told us he wanted an invitation to our wedding. Two years later he got one! We celebrated our 30th anniversary in June and our oldest graduated from Tech in April.

“From working at TechLine, I’ve learned how important it is to stay connected with the past. I love talking to alumni, hearing about their experiences, and getting their advice. It’s amazing how much more I know about the school.

We owe so much to our generous alumni, and I hope the Student Philanthropy Council can encourage students to give back, so future generations can have all the wonderful things we enjoy that we might take for granted.”

Katie Gauthier, civil engineering major, member of the Student Philanthropy Council, and a student development officer for TechLine.

The Annual Fund

Making a difference—every day, every year.

Your yearly gift—no matter the size—helps students like Katie make the most of their Tech experience.

To give to the 2012–13 Michigan Tech Annual Fund, go to www.mtu.edu/giving, phone 906-487-2310 or toll free 877-386-3688, or mail your gift to the Michigan Tech Fund, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295.
What's up with you? Submit your own class note and photo online at mtu.edu/alumni/connect/huskylink or email us at techfund@mtu.edu.

Daniel Schmidt ’71 (Metallurgical and Materials Engineering) tells us that after forty years in the trenches of the iron foundry business, he retired at the end of 2011. “It would be great to hear from ‘old’ classmates.”

Sarah Rajala ’74 (Electrical Engineering) has been named dean of the College of Engineering at Iowa State University, effective April 1. She had been the dean of engineering at Mississippi State University since 2008.

Joseph Cavanagh ’77 (Business Administration) is pleased to announce his election to the Board of Directors of the Eugene Mission, www.eugenemission.org. He serves as its treasurer. After a four-year absence, he is rejoining an organization he had served for nearly twenty-five years. The Eugene Mission is a Christian organization that serves the homeless in the Eugene/Springfield, Oregon, area.

James Schwaderer ’78 (Business Engineering Administration, Electrical Engineering) has moved back to the US after spending four years working in Christchurch, New Zealand, with AECOM. He’s now with AECOM in Piscataway, New Jersey.

Daniel Haubenstricker ’80 (Liberal Arts) is the senior estimator for Sports Fields, a firm specializing in athletic field construction for professional, university, high school, and municipal clients across the US.

Diane O’Keefe ’81 (Civil Engineering) has been named vice president and Illinois area manager for Parsons Brinckerhoff, a subsidiary of Balfour Beatty, a global infrastructure consulting, planning, engineering, and program/construction management organization. She will be based in Chicago. Diane was employed by the Illinois Department of Transportation for thirty years.

Paul W. Juodawlkis ’86 (Electrical Engineering), with the MIT Lincoln Laboratory, has been named a Fellow of the Optical Society.

Ross Roeder receives Coast Guard Spirit of Hope Award

Ross E. Roeder ’60 (Business Administration), a recipient of Michigan Tech’s Board of Control Silver Medal, has been honored with the Spirit of Hope Award for his “selfless dedication to the men and women of the US Coast Guard.”

“Embodying Bob Hope’s legacy of service, Ross Roeder and the Coast Guard Foundation tirelessly supported Coast Guardsmen and their families in a wide variety of ways,” said Admiral Bob Papp, who presented the award at a Pentagon ceremony. “He is very deserving of this prestigious award and I am honored to present it to him.”

Roeder served as board chairman of the Coast Guard Foundation from 2005 to 2011. Under his tenure, the foundation expanded education, support, and relief programs for Coast Guardsmen and their families.

The Coast Guard Foundation recognized Roeder’s continued interest and commitment to supporting the Coast Guard by creating a Ross Roeder Endowment Fund for morale projects in Michigan.

The Spirit of Hope Award recognizes the outstanding service of men and women of the US Armed Forces, entertainers, and other distinguished Americans and organizations whose patriotism and service reflects that of Bob Hope, the award’s namesake. The award is presented annually by the five armed services and the Office of the Secretary of Defense.
Charles Henrich Jr. ’90 (Non-degree) has been named vice president and general manager for WFTX, part of the Journal Broadcast Group, which owns and operates 34 radio stations and 15 television stations in 12 states with headquarters in Milwaukee.

Tracey and Robert Laitinen ’95 (Civil Engineering Technology) ’96 (Surveying) of Barbeau welcomed a son, Daniel Robert, on December 3. He weighed 11 pounds, 8 ounces and was 22 inches long. He joins Audrey Marie, age 6.

Robert Doyle ’98 (Environmental Engineering) is now director of communications at the Association for Advancing Automation, based in Ann Arbor.

Angela (Long) ’98 (Biological Sciences) and Timothy Palmer ’98 (Biological Sciences) welcomed Connor Jameson Warner into the world on July 17. He weighed 9 pounds, 1 ounce.

In January, Heather (Lewis) Bartel ’99 (Scientific and Technical Communication) became a procurement consultant for Kimberly-Clark in Neenah, Wisconsin, responsible for the design and implementation of the company’s global contingent labor strategy.

Genae ’01 (Chemical Engineering) and Tim Meerstein ’00 (Business Administration) announce the birth of Lillian Kaythryn on October 1. Marcus and John are thrilled to have a little sister.

Jeremy ’01 (Chemical Engineering) and Jennifer Williams ’02 (Clinical Laboratory Science) announce the birth of a daughter, Lillian Emma, on July 27.

Matthew Dina ’02 (Civil Engineering) has begun working toward an MBA at the University of California, Davis.

Laura ’03 (Scientific and Technical Communication) and Jon Klump ’02 (Electromechanical Engineering Technology) ’03 (Engineering Technology) welcomed Connor Dolan on August 3.

Brent Johannsen ’03 (Environmental Engineering) and Tracie M. Moss were married September 29 in Indianapolis, where they both live and work.

Reed Alexander was born January 18 to Stacy (Chiles) ’04 (Biomedical Engineering) and Brad Millon ’01 (Electrical Engineering).

Alexander Sample appointed archbishop of Portland

After spending seven years as bishop of the Catholic Diocese of Marquette, the Most Reverend Alexander K. Sample is heading west. In January, the Vatican announced that Pope Benedict XVI appointed him archbishop of Portland in Oregon.

In a prepared statement, Sample said, “Even as there is excitement and joy at taking up this new challenge that God has placed before me, I would be less than honest if I did not say that I will leave the church in the UP with a certain heaviness of heart. I will profoundly miss the people, the clergy, and the religious of the diocese.”

After earning bachelor’s and master’s degrees in metallurgical engineering in 1982 and 1984 from Michigan Tech, Sample completed studies in philosophy at the College of St. Thomas in St. Paul, Minnesota, in 1986. He was ordained a priest in 1990 at St. Peter Cathedral in Marquette and, at age 45, was ordained bishop of Marquette in 2006, making him the youngest bishop in the United States at the time.

Aaron Besmer, Jerry Philo appointed to state boards

Michigan Governor Rick Snyder has appointed two alumni to state boards.

Aaron Besmer ’98 (Civil Engineering) was named to the Barrier-Free Design Board. The nine-member board helps the Michigan Department of Licensing and Regulatory Affairs review and process requests for exceptions to barrier-free design specifications. It also makes recommendations for barrier-free design rules. Besmer will serve a three-year term that expires in 2015.

Gerald F. “Jerry” Philo ’80 (Mechanical Engineering), an associate and senior project manager with Harley Ellis Deveraux, has been re-appointed to the Board of Mechanical Rules. The four-year term will end in 2016. The board makes recommendations for mechanical code rules, issues mechanical contractor’s licenses to qualified applicants, and makes orders, rules, and regulations. Philo will represent professional mechanical engineers.
2000s

**Jacoby ’05 (Mechanical Engineering) and Sara (Flessert) Huggard ’04 (Electrical Engineering) announce the birth of their second child, Avalyn Rose, born October 29. Ava is welcomed by big sister Fiona.**

**Michael Urban’05 (Business Administration) has accepted a position with the University of West Florida as an institutional research data analyst and enjoying beautiful Pensacola.**

**Scott Bolon ’06 (Civil Engineering) and Alison Skwarski ’06 (Environmental Engineering) were married on January 26 in Brighton.**

Sarah and **Kurt Hintz ’06 (Electrical Engineering) welcomed their first child on October 3. Jack Kurtis weighed 5 pounds, 9 ounces, and was 18.5 inches long.**

**Scott Isaacson ’06 (Business Administration) is currently working as a senior consultant for an electronic medical record (EMR) consulting firm, VeriWave Group. He began his first contract in July 2012 as a project manager at the University of Arizona Health Network, working on the installation of Epic Systems, an enterprise EMR. He travels between Madison, Wisconsin, and Tucson on a weekly basis. Scott earned his master’s certificate in project management from the University of Wisconsin School of Business in June. Previously, he was a senior systems analyst at the University of Wisconsin Hospital and Clinics (2009–12), a business systems analyst at Sentry Insurance (2007–08), and a technical services engineer at Epic Systems Corporation (2006–07).**

**Randall Peck ’06 (Chemical Engineering) has been named a shareholder in the legal firm of Howard & Howard, based in Royal Oak. Peck concentrates his practice in intellectual property law with a focus on patent preparation/prosecution and opinion work, primarily in the chemical arts.**

**Megan Gayeski, MD, ’08 (Anthropology) has been elected co-chair of the Residents and Fellows Section of the Chicago Medical Society.**

**Brian ’08 (Chemical Engineering) and Jillian Schubert Edwards ’09 (Applied Ecology and Environmental Science) ’11 (MS, Environmental Policy) were married November 3 in Holland, Michigan.**

**Kristin Schmidtke ’08 (Mathematics) and Will Brewer ’08 (Electrical Engineering) were married August 25. The couple now resides in Seattle.**

**Matthew J. O’Neill ’09 (Wildlife Ecology and Management) has been named assistant property manager for the Indiana DNR.**

2010s

**Abbygail ’10 (Business Administration) and Justin Carlson ’07 (Chemical Engineering) welcomed Henrick on February 7, 2012.**

**Stephanie Garback ’10 (Environmental Engineering) started a new career October 29 as a transportation engineer with The Transpo Group in Kirkland, Washington. She also became engaged to Michael Sullivan October 13 during a trip to Hawaii.**

**Andrew McCollum ’12 (Chemical Engineering) and Bethany Pierce ’11 (Chemical Engineering) were married on October 6 in Essexville.**

**Tim Juidici ’04 honored by National Engineers Week Foundation**

The National Engineers Week Foundation named Tim Juidici, PE, a municipal engineer with Orchard, Hiltz & McCliment, the 2012 American Council of Engineering Companies National Young Professional of the Year. He accepted his award at the ACEC 2012 Fall Conference in Boca Raton, Florida. Juidici earned a BS in Civil Engineering from Michigan Tech. He is based in Livonia, where he has completed several award-winning municipal projects.

Juidici is active in a variety of societies, including ACEC, the American Public Works Association, and the American Society of Civil Engineers. He also volunteers his time for the Boys/Girls Club of SE Michigan, judges the ASCE steel bridge competition, and is a community cleanup volunteer.
In memoriam

The Michigan Tech family extends condolences to the relatives and friends of those who have passed away.

1934
Robert A. Hockstad

1935
Wayne L. Moore, PE

1937
Dr. Ellis E. Roberts

1941
Anthony R. Phillipich
Charles W. Rollman

1943
Walter T. Anderson, PE

1944
Howard E. Scharfenberg

1946
Holly E. Nelson
Kenneth C. Olson

1947
John J. Moon
William J. Nancarrow
Richard W. Sampson

1948
John E. Bemis
Dr. Jack C. Holland
Paul A. Partanen
Arthur W. Richardson
Heinz Seiler

1949
Richard J. Alkema
Vivian I. Coon
Walter P. Jacobs
Sterling J. Larsen
Kenneth D. Nault
Fiorentine A. Rausch
Lloyd V. Short
Thomas J. Vukovich

1950
Duane E. Elliott
Clayton A. Houle
Eugene A. Povalski

1951
James R. Bierly
Horace F. Eaton
Paul E. Frusti
Dr. Alfred A. Hendrickson

1952
George H. Williams

1953
Francis O. Marta
Roderick G. McDonald
Beatrice N. (Nurmi) Meyers

1954
Richard E. Bidstrup

1955
Victor A. Chylinski
Edward J. Darby
David H. LaVelle, PE
Edwin E. MacNealy
Major General Manila G. Shaver (Ret.)

1957
Donald W. Auto, PE
Fredrik L. Collins
William E. Shepherd
Roy R. Smith Jr.
J. Lawrence Tomlinson, PE

1958
Bruce J. Carlson
Arthur H. Krellwitz
Marcia S. Pruner

1959
William C. Bates
Frederick T. Kokko
Walter A. Sullivan

1960
Richard C. Ford
Michael W. Wisti

1962
Merle E. Brander
Gary D. McAlvey

1963
Margery A. (O’Connor) Meyers
James A. Roberts, PE
John F. Szymanski

1964
Duane A. Douglass
Walfred A. Lindell

1965
Lee E. Bernson, PE
Donald C. Logan, MD
Gary E. Rhoney
Dennis M. Ruttle
Kenneth Ulz

1966
Thomas L. Gritzmaker

1967
Roderick W. Snell

1968
Knute G. Bidne
John C. Bloswick

1969
Susan K. (Arnoldt) Foss

1971
Paul L. Sullivan

1972
David L. Mastny

1973
Michael G. Altmann, MD

1974
David P. Wilmers

1975
Jeannine M. (Niemi) Onge
Gordon F. Sibilsky

1976
Victor L. Monczynski III

1977
Darrel J. Vertanen

1978
James R. Arvo

1979
L. Ben Mykkanen

1980
Terry L. Ausema

1984
Robert R. Burt
Eric F. Jurgensen

1992
Beatrice E. Ritchie

1993
Elizabeth R. (Teresinski) Elsevier

1994
Linda M. Carruthers

1999
Boguslaw Z. Zarski

2009
Justin A. Crosswhite

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Transitions

Walter T. Anderson
Director, School of Technology
1923–2013

Walter T. Anderson, former leader of two academic units at Michigan Tech, passed away January 28 at home after a long illness. Anderson, 89, a longtime resident of Woodland Road in Houghton, was living at the Bluffs Senior Community.

He earned BS and MS degrees in Electrical Engineering from Michigan Tech, in 1943 and 1950. During World War II, he worked on the Manhattan Project in Oak Ridge, Tennessee, where scientists enriched uranium that would be used to build an atomic bomb.

He returned to Tech as a member of the electrical engineering faculty in 1954, earning the Distinguished Teaching Award in 1957. In 1970, he was named assistant head of the electrical engineering department and was its acting head in 1972 and in 1979–80. In 1984, Anderson was appointed director of the School of Technology, a position he held until his retirement in 1988.

Anderson was an influential engineering figure statewide and nationally. He served as vice president of the National Council of Engineering Examiners, which honored him with a distinguished service award and an award of merit. He was a member of the Michigan Society of Professional Engineers, which named him Engineer of the Year in 1971 and a fellow in 1994.

He was a lifelong amateur radio operator and was a member and an active participant in the UP Evening Net, having been named “Ham of the Year.”

In 2007, Anderson was honored with the Board of Control Silver Medal. He established a scholarship at Michigan Tech for electrical engineering and technology students.

Anderson is survived by his wife, Marie; daughters Karen (Ken) Fraser of Milford, Massachusetts, and Marilyn (Michael) Glover of Ickford, England; sons Richard (Lois) of Calumet, Dale (Phyllis) of Calumet, Dale (Phyllis) of Dollar Bay, Ronald (Barb) of Tapiola, Robert of Chassell and Thomas (Terry) and Keith (Karen) of Houghton; 14 grandchildren; and 21 great-grandchildren; and numerous nieces and nephews.

Paul Hinzmann
Professor emeritus of physics
1913–2012

Paul Revere Hinzmann, professor emeritus of physics, died November 30 at the Clark Retirement Home in Grand Rapids. He was 99 years old.

Hinzmann received a master’s degree in education from the University of Michigan before beginning his teaching career at Michigan Tech in 1946. He taught until 1977 and was also the University photographer during his tenure at Tech. He was recalled as a patient, caring teacher who loved the enthusiasm of students. After retirement, he was active in the local Boy Scouts chapter, Isle Royale Natural History Association, and Golden Kiwanis.

Paul is survived by his wife, Elsie (Feigley) Hinzmann and his children, Georgia (Hugh) Makens of Grand Rapids and Vincent (Nancy) Hinzmann of Milford, grandchildren, and other family members.

Retirements
The following faculty and staff retired from Michigan Tech recently. The years they first came to Tech are listed below.

- Elizabeth Badke, library assistant, Van Pelt and Opie Library, 1975
- Judith Foreman, bookstore specialist, Merchandising Operations, 1989
- Debra Forsell, senior staff assistant, Dean of Students Office, 1985
- Francis Garyep, telecommunications engineer, Information Technology Services and Security, 1990
- Nancy Grimm, professor and director of the Multiliteracies Center, Humanities, 1978
- William Hall, associate director, Dining Services, 1978
- Brenda Helminen, director, Telecommunications, 1980
- James Kaura, equipment operator, Facilities Management, 1981
- Ranjana Mehta, assistant professor, Cognitive and Learning Sciences, 2011
- Norbert Miller, equipment operator, Facilities Management, 1980
- Stephen Rossi, data specialist, Marketing and Communications, 1989
- Barbara Ruotsala, administrative aide, Auxiliary Services Operations, 1975
- Martha Sloan, professor, Electrical and Computer Engineering, 1969
- Margaret Thornton, office and account assistant, Accounting Services, 1977
Do you want to help Michigan Tech and still enjoy your financial freedom?

If you are like many other alumni and friends of Michigan Tech, you want to support your University, yet you worry about committing your assets in an uncertain economy. A charitable bequest through your will, trust, or retirement account may be the solution.

To learn more, call us at the Office of Gift Planning. We’d be happy to help.
A message for all the Women of Tech: Please help!

An alumna has pledged $50,000 to the University—if an additional 500 women also give before June 30, 2013. This means that your gift, big or small, can have a huge impact. But this chance will be over soon. Please give now and support generations of Tech students who will create the future.

To give, go to www.mtu.edu/womenoftech/giving or call 877-386-3688.