natural sciences AT PARKLAND COLLEGE

Spring 2018 Newsletter

Letter from the Chair

Once again, as the semester and academic year draw to a close, I appreciate the opportunity to reflect out loud on the happenings both in our department and at the College.

Firstly, I want to express my deep sense of humility that the dedicated professionals in the Natural Sciences Department have elected me to serve as their Chair again for the next three years. To me, there are few joys that compare with the sense of accomplishment that comes from working with other experts towards a common goal. The opportunity to represent the faculty and staff of this department is one I take very seriously. I will continue to do my level best to serve your interests as Chair.

I am also looking forward to working with Manny Rodriguez in a new capacity as he steps into the role of Part-Time Faculty Evaluation Coordinator, AKA Assistant to the Chair (AttC). Manny is undertaking many initiatives in the Department right now and I have every confidence that he will perform the AttC duties with his usual proficiency. But, I also want express my sincere appreciation for the outstanding work Britt has done with me over the last two+ years. Her competence and excellence shines through in her role as AttC just as it does in all she takes on. Britt, thank you for dispensing these duties with alacrity and good humor. I'm just glad that I'll continue working with you on many levels, even as you move on from this position (*editor's note:* aww, shucks, thanks, Scott).

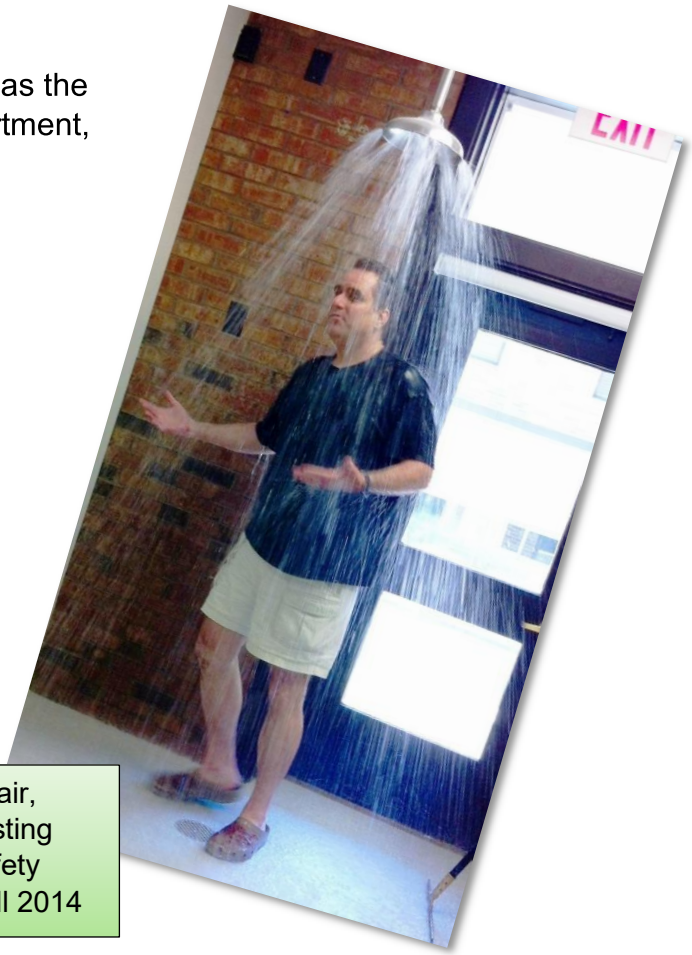
Professional Development Day for the Natural Sciences Department is always a highlight of the Spring semester and 2018SP was no exception. The benefits to camaraderie and the sharing of pedagogical and practical ideas shared among faculty in our department once again fulfilled the promise envisioned when this practice was initiated. (For more on this, see Rich Blazier's contribution to this Newsletter – the second installment is once again interesting and informative!). Additionally, the ALICE training provided by Officer Angela Corray was timely and well received. Thanks once again to the Professional Development Day committee and everyone who participated for another fruitful and fun day.

This semester saw the roll-out of the new public facing Parkland website, www.Parkland.edu. While there are links and pages that are not as intuitive as could be hoped, I think many of us agree that it is a significant improvement over the previous website. If you have corrections, concerns or additions to suggest for our website, please pass them on to either me or Cindy Smith, our Division Marketing Program Manager. The update to our website was a larger task than I would have imagined, requiring coordinated efforts of many people around the college. Thank you to all who provided input and oversight – it is much appreciated. I know that many of us, myself included, are hoping for a similarly herculean effort to re-vamp our intranet, My.Parkland and Sharepoint. Speaking of upgrades to websites, please keep in mind that Cobra Learning Management will receive an update during Prep-week of the Fall 2018 semester. My understanding is that the changes are largely in appearance and that the functionality we are used to will still be there, just perhaps in a slightly different place. Lori Wendt has sent emails with several options for us to familiarize ourselves with the new interface before it rolls out – please give them some attention and be prepared for the changes (refer to Lori's article for additional information).

As always, thank you all very sincerely for your dedication, professionalism and focus on the best possible outcome for our students as a whole. Your outstanding work makes my job a pleasure to perform.

Deeply honored to continue serving as the Chair of the Natural Sciences Department,

Scott



Our *re-elected* chair, Scott Siechen, testing out the bio lab safety shower during Fall 2014

Department Initiatives

Moving Beyond the Scantron for Multiple Choice Test

Written by Dave Wilson

Yep, there's an app for that! I and many others have started adopting ZipGrade to grade multiple choice assessments. It's available on iOS and Android, although the interface is slightly different between the two.

First, download the app and check out the website at zipgrade.com. Create an account using the app. From the app you can email yourself a standard sized form with 20, 50 or 100 question options. If you need something more custom go to the website and design your own answer forms. You can add custom elements like ID numbers and internal or external bubbles. There is also the capability of having multiple keys for the same assessment (Figure 1).

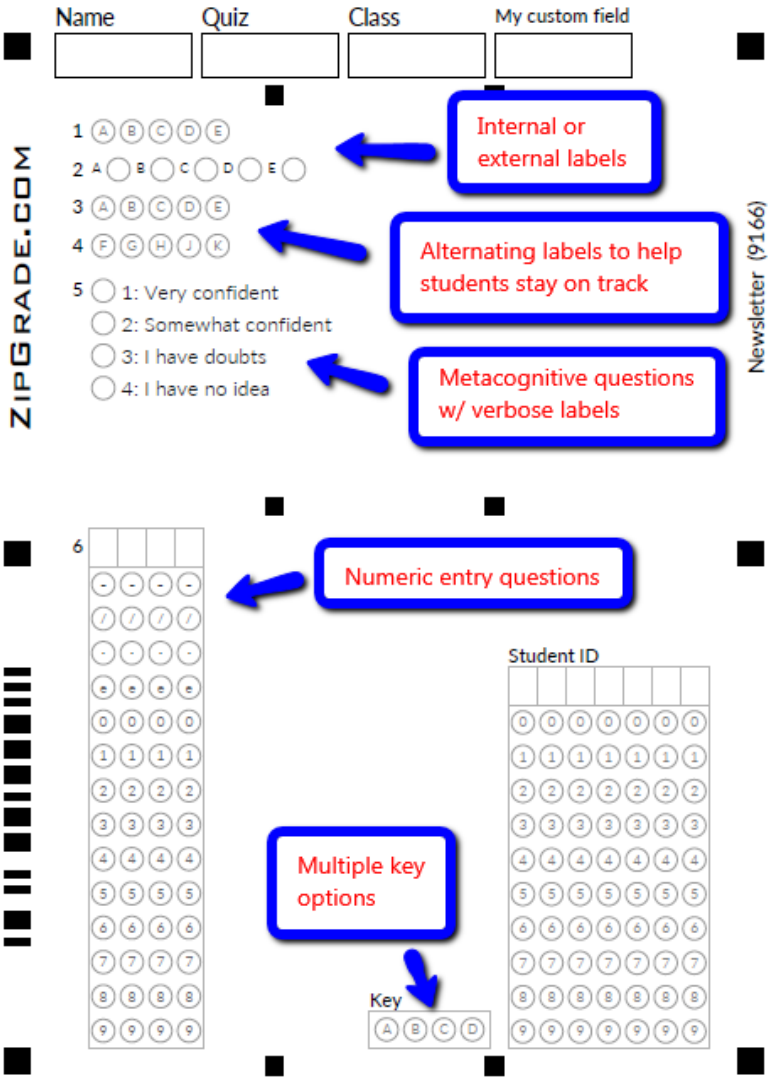
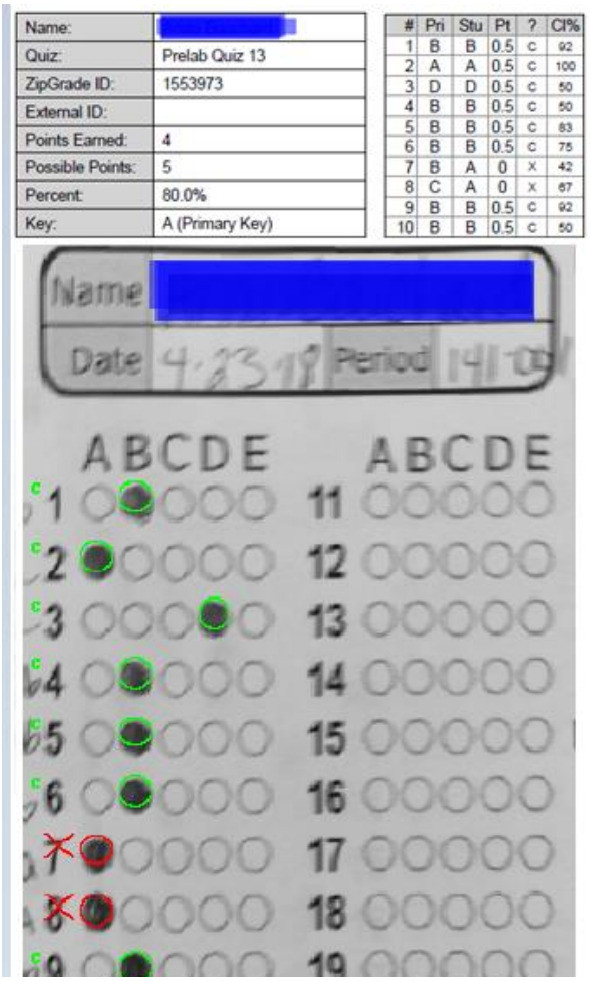


Figure 1 *- Custom answer form sample. There are multiple question types you can choose from.*

I intend to try out a custom form next semester for my weekly lab quizzes. I'll squeeze as many questions as I can onto a single page. My lab quizzes are only 10 questions, so I will reuse the same form every week instead of having reprographics print out quarter-sheet pads. It will also save me a little time grading those by hand.

Would you like to include some metacognitive questions or other "verbose label" questions (see my sample answer form). You can even incorporate some free response, numeric entry questions that have +/-, decimal points, scientific notation, fractions, etc. Some of these options can take up quite a bit of real estate though!

I am particularly excited about the data analysis potential and reporting functions in this tool. As an example, you can print out individual reports for each student (Figure 2). Another option is to print out Strip Reports. This could be useful if you do in-class corrections (Figure 3).



Name:	[redacted]
Quiz:	Prelab Quiz 13
ZipGrade ID:	1553973
External ID:	
Points Earned:	4
Possible Points:	5
Percent:	80.0%
Key:	A (Primary Key)

#	Pri	Stu	Pt	?	CI%
1	B	B	0.5	C	92
2	A	A	0.5	C	100
3	D	D	0.5	C	50
4	B	B	0.5	C	50
5	B	B	0.5	C	83
6	B	B	0.5	C	75
7	B	A	0	X	42
8	C	A	0	X	67
9	B	B	0.5	C	92
10	B	B	0.5	C	50

Figure 2 *- One of the many report options available. Note that this option includes your answer key.*

Exporting your roster from Cobra and then importing it into the ZipGrade website is pretty simple. The website will keep all your scores in a grade book format. You can archive old assessments to remove them from your main view, but still easily access them in the future if needed. There are too many other features to mention in this article, but the developers of this app have a strong connection with education and clearly know the needs of that community.

There are some benefits to the department and the college. Health Professions and Natural Sciences have spent about $4,000 just this year for maintenance contracts and Scantron forms on the machine in L140. The second floor scanner could certainly save us most of that money, but anyone who has used that machine knows its limitations. And many instructors prefer the simplicity of the Scantron. ZipGrade can offer the simplicity along with the power of data analysis and reporting all in one tool. And it's free up to 100 scans per month. If you're a frequent scanner, that'll cost you a whopping $6.99/year!

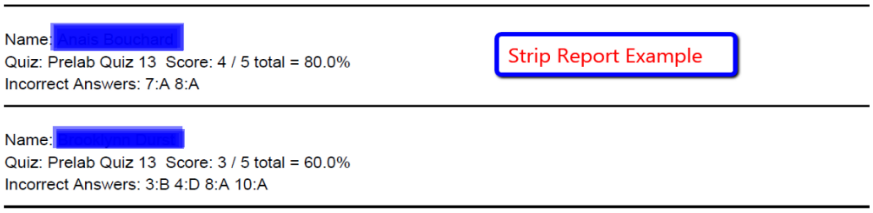


Figure 3 *- Strip report showing just the incorrect responses for each student.*

Department Initiatives

Green Infrastructure

Written by Heidi Leuszler

Green Infrastructure is a phrase that describes sustainable ways of managing storm and wastewater in cities. The general idea is that instead of draining all of the water, the water is collected, stored, and either returned to groundwater systems or consistently released to the city's drainage system to control flooding issues. With changing municipal zoning laws, landscaping requirements, and climate/weather, green infrastructure is a fast-growing field yet organizations are finding that their workers don't know what it is, how to maintain structures, and the demand for trained individuals is growing globally. This is affecting not only cities; I went to a seminar last week about storing water in agricultural fields using green infrastructure technology! It is a big field and it is growing.

I am currently working on proposing that Parkland work with the new National Green Infrastructure Certification Program (NGICP) to offer green infrastructure certification training to our local community of landscapers, park district and municipal employees, and a slew of other interested parties. I am happy to announce that Parkland is on the road to becoming a training and exam center for the NGICP! We will be the first community college, and likely the first higher education institution in the country to obtain this status! Natural Sciences and Business Training are working toward becoming a training and exam center, and we hope to offer our first training session in late summer/early fall! We are very excited about this partnership with the NGICP, as well as the Water Environment Federation and our many community partners.

If you'd like to learn more about the training, please look at www.ngicp.org. Tell any interested parties, and stay tuned for official announcements.

Department Initiatives

Sabbatical Leave

Written by Christina Beatty

As I was on our semi-annual field trip with Sci108 students to the Champaign Police Department last fall, I casually asked the head of the Crime Scene Unit (and father of a former student!) if there would be any place for me to intern with the CSU if I were to apply and be granted a sabbatical. The more we talked, the more excited I got! You see, I consider myself a generalist with background in chemistry, education and forensics. I know a little bit about a lot of things, but not a lot about one thing (I have two Masters but no PhD, for example). Other than a short summer internship at a Crime Lab in Sioux Falls, SD, I don't have the "hands-on" experience in forensics at a crime scene or lab. After being granted the Sabbatical, I am getting excited for Spring 2019!

The goals of my sabbatical are to observe what the CPD CSU does in regards to:

- Demonstrating proper crime scene processing skills including:
  - Correctly securing a crime scene
  - Thoroughly documenting a crime scene and its evidence including note taking, sketching and taking photos
  - Properly collecting evidence
  - Employing a secure "chain of custody" to ensure the integrity of evidence
- Evaluating what useful evidence should be documented and collected from crime scenes
- Articulating the protocol within and interdependence of departments of a crime lab
- Summarizing how a Coroner is involved in death investigation

Activities I hope to participate in include:

- Observing crime scene protocol at scenes
- Observing evidence analysis back at the station, including protocol for sending evidence to the State Crime Lab
- Asking questions of CSU officers about protocols for evidence collection, chain of custody, evidence processing, etc.
- Visiting the coroner's office
- Touring (and maybe observing at?) a state crime lab
- Attending trial(s) at the courthouse for cases with significant forensic evidence
- Attending CSU training days
- Helping with CSU side projects as available and appropriate (in which there would not be a legal concern for my help of course)
- Attending the American Academy of Forensic Sciences annual meeting in February
- Attending a Lily Conference on College and University Evidence-Based Teaching and Learning to help with my work on the PDSF (Professional Development Subcommittee for Faculty) committee

Thanks-in-advance, Parkland and Champaign PD, for this tremendous opportunity!

Department Initiatives

Illinois Science Olympiad – Parkland Regional Tournament

Written by Amy Nicely

On Saturday, February 17, Parkland hosted its eighth annual Illinois Science Olympiad Regional tournament. This year there were a total of 25 teams from 18 area schools that participated. We were pleased to welcome Academy High as first-time participants.

The tournament consists of 23 events for middle school teams and 23 events for high school teams. The topics for the events span all scientific disciplines including biology, chemistry, earth science, physics and engineering. Awards are given to the top finishers in each event, and the teams with the highest overall scores move on to the next level of competition. The Science Olympiad program includes Regional, State and National tournaments. The Division B (middle school) teams that advanced to the state tournament were St Matthew, Glenn Raymond, and Western Jr High, while University Laboratory High, Mahomet Seymour, Centennial, and St Matthew all advanced from Division C (high school). These teams competed at the University of Illinois on April 21.

Of course an event of this size couldn't be possible without the assistance of many volunteers – about 100 overall! I want to give special thanks to Erik Johnson, my tournament co-director. Thank you also to everyone who volunteered time in any capacity (planning/running events, volunteering for day-of support at headquarters/hospitality/scoring, encouraging your students to volunteer, etc.). We couldn't do it without you!

More photos from the tournament can be found on our Facebook page: https://www.facebook.com/PC.ScienceOlympiad/

Illinois Science Olympiad – Parkland Regional Tournament

ISO Awards Ceremony: Pam Lau, Scott Siechen, and Amy Nicely congratulate winners.

Illinois Science Olympiad

Engaging Students Outside the Classroom

Written by C. Britt Carlson

Spring 2018 was another successful semester for the Parkland Science Club (PSC). We continued our invited lecture series, hosting Dr. Mike Miller, a UIUC microbiology professor, Ravi Raman, a UIUC Electrical and Computer Engineering grad student, and Kristen Flatt, a UIUC Neuroscience grad student. We also teamed up with Club Latino to co-host Elena Montoto Blanco, a UIUC Chemistry grad student and the UIUC chapter president of SACNAS, Society for Advancement of Chicanos/Hispanics and Native Americans in Science. Thanks to everyone for your support of this invited lecture series. The talks are a great way to expose our students to various areas of science and to a snapshot of what doing science (and what grad school) is like. Promoting (or giving extra credit) helps gets students involved in PSC.

Once again, PSC volunteered to run an event at the IL Science Olympiad regional tournament at Parkland. The students really enjoyed working this terrific experience.

Or trip this semester was a visit to NSCA, the National Center for Supercomputing Applications, at UIUC. We had a great visit to the machine room and a showing of their 3D visualizations of scientific phenomena.

We wrapped up the semester by joining Julie Angel on her bi-yearly trip to Starved Rock State Park. It was a beautiful day and a record turnout, including many ESC students and a few PSC students. There was a terrific fossil find – to quote Julie, “Found one of the largest crinoid stem segments (i.e. Indian Beads) that I’ve ever seen.” Many thanks to Julie for letting us tag along!!

As we conclude Spring 2018 and start planning for Fall 2018, we want to send out a hearty **Thank You!** to Mike Retzer for his service as PSC’s co-advisor from Fall 2016-Spring 2018. It has been great working with Mike and we really valued his contributions to PSC. At the same time, we sent out a hearty **Welcome!** to Bryan Krall, the new in-coming PSC co-advisor starting Fall 2018. We are looking forward to having you join the team.

Above: PSC with invited speaker, Kristen Flatt. *Below:* PSC joins Julie Angel’s trip to Starved Rock

Engaging Students Outside the Classroom

Phi Theta Kappa Honor Society News

Written by Lori Garrett

April 19-21, I accompanied Emily Grumish, Jadin Elliott, and Victoria Varner to PTK Catalyst 2018--Phi Theta Kappa's Centennial Celebration, in Kansas City, Missouri. With over 4000 attendees, the Society set a new record, and our chapter received some major recognition on the International Convention stage.

We are one of only two chapters in Illinois to receive a **College Project Award**. Each year, chapters are asked to meet with their College President to determine a project to be completed on behalf of the administration. Ours was to improve student engagement, and we are in the process of transforming the unused information desk in the U building into a functional welcome and information center. We are working with Student Life on this project and will be relaunching it next fall (Josh and Evie have been pretty busy over there learning their new roles and doing amazing things to revitalize Student Life and our student organizations!).

Our greatest accomplishment, though, was in receiving another **Beta Alpha Continued Excellence Award**. This is awarded only to chapters who have been ranked as a Distinguished Chapter for at least three consecutive years. This is our THIRD consecutive Beta Alpha Continued Excellence Award, so our chapter has been a *Distinguished Chapter* at the International level for five straight years! Only 10 chapters received Beta Alpha Continued Excellence Awards this year—no others in Illinois.

Each year, Phi Theta Kappa asks chapters to undertake two major initiatives—College Project and Honors in Action. To be considered for a Distinguished Chapter Award, a chapter must submit detailed entries for both the Honors in Action Project and College Project Awards. The scores in each of these two Hallmark categories are averaged to determine a chapter's overall ranking. Awards are presented to only the top 10 percent of chapters entering both categories.

For Honors in Action, we have a two-year Honors Study Topic with subthemes. Last year's HST was "*How the World Works: Global Perspective*" and we chose the theme "Myth and Reality." Student select a focus area and then do scholarly research that should lead them to an action component (Honors in Action). Our chapter explored how we get our information about current events (news). They explored control of media in various societies, bias, the role of a free press in democracy, and how to improve our own information literacy and become more informed citizens. This led to us hosting a panel discussion with

- Jane Smith (librarian),
- Kendra McClure (Communications),
- Willie Fowler (Political Science),
- Ruthie Counter (Marketing/Public relations),
- Emma Gray (Prospectus editor),
- Aaron Eades (Anchor, reporter, and producer, WCIA-3 News),
- Dan Corkery (News-Gazette Media Managing Editor for Administration), and

- Senait Gebregiorgis (Reporter, Fox Champaign News).

The presentation was recorded and is available for classroom use and will be shown on Parkland's community access TV channel. We are also developing materials about information literacy to possibly be included in the FYE courses, and we reinvested previous funds through kiva.org to help a woman in El Salvador keep her internet café open to provide local students educational opportunities and access to information from around the world.

Our chapter's other recognitions included being named again as a **Five-Star Chapter** (highest level) and a **Top 100 Chapter**. In addition, if you know Larry St. Louis, congratulate him—Larry received a **Distinguished Member Award**.

And speaking of distinguished Phi Theta Kappans, Jenny Olmsted is one of our former chapter presidents. Jenny's latest accomplishment was featured in the April 20th News-Gazette (http://www.news-gazette.com/news/local/2018-04-20/top-the-morning-april-20-2018.html). At Jenny's last International Convention with our chapter, she overcame nerves and shyness to approach Dr. Michio Kaku as he passed nearby after being our keynote speaker. (We've had Neil Degrasse Tyson too!) Jenny had quite a chat with him about career paths and apparently he advised her well—she's at the University of Florida majoring in environmental engineering. Here's part of Jenny's original Facebook post when she announced her great opportunity:

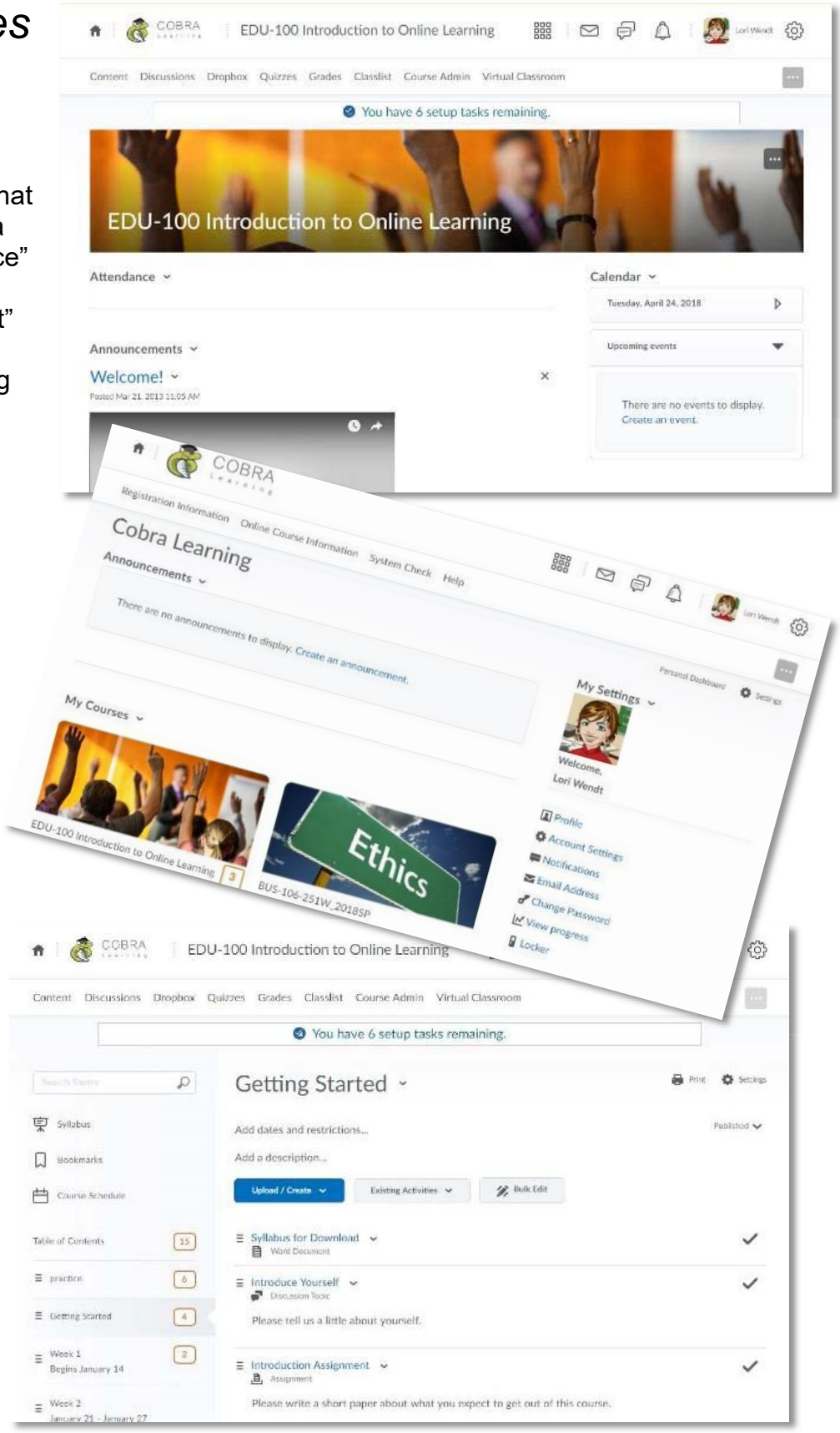
"WOW, just WOW! I am more than honored to be one of only six students that have been selected from around the world to travel to the United Nations Headquarters in Midtown Manhattan, New York and pitch my idea for solving the world's clean water crises. This was just a dream of mine and now it is coming true."

Campus Initiatives

Cobra Updates

Written by Lori Wendt

Last fall, CETL announced that we would be updating Cobra Learning to the new "interface" developed by D2L. D2L has been working on this "facelift" for a long time, and the unveiling for Cobra is coming soon…August 13 to be exact! The new look is cleaner with consistent and accessible fonts and color schemes and it is mobile-friendly! All functionality will remain the same and there is no downtime. We planned the update to coincide with welcome back to ensure the fewest number of people would be in the system, as to not startle users when the update takes place. We will be providing hands-on sessions of the new interface through summer, including an online version via an eLearn session. So far, the feedback we've gotten is positive. It's received great reviews from the other schools who have already adopted it. We like it, and we hope you do, too!



Meetings

Forensics Conference

Written by Christina Beatty

I attended a one-day conference on forensics at Greenville University (about 2 hours south of here). Speakers included a retired FBI criminal profiler, a retired FBI DNA analyst, a retired forensic pathologist/medical examiner, a current special agent for the ATF and a current FBI Unit Chief of the Evidence Management Unit. Some take-aways:

• It's very difficult to get into the FBI. 95% of people fail for "lack of candor" (meaning you fail the polygraph - especially in regards to past drug or alcohol use. They'd much rather have you be honest about it!)

• Dr. Cumberland, the medical examiner, did the autopsy on the wife of the medical examiner who killed her with an anesthetic. Talk about a made-for-tv-perfect-murder-plot! He also noted that since the campaign to put babies to sleep on their back, he went from having 4-5 SIDS (Sudden Infant Death Syndrome) a month to only about 1-2/year.

• Pete Smerick, the retired FBI criminal profiler, worked on the ransom notes in the JonBenet Ramsey case. He talked about how he develops behavioral clues from physical evidence. Because it's not a hard science, profilers aren't allowed to testify in court to a profile they've developed, but they can testify on signature links between cases. Of course they are mainly there to help law enforcement develop leads.

• Rhonda Craig, the current FBI Unit Chief, did DNA work on the Brooke Wilberger missing person case in Oregon. Her work led to the conviction of Joel Patrick Courtney, several states away when they found Brooke's DNA in the company van Joel was driving after swabbing and searching through 150 pieces of evidence. The FBI lab in Quantico is 500,000ft2 with 1,000+ employees, and they receive 13,000 cases/year (mostly violent crime, bank robberies, kidnappings, terrorism).

• Craig Holloway, Special Agent in the ATF, talked about post-bomb blast evidence recovery. Though the FBI is involved in all terrorist bombings, the ATF technically covers all others, though often both are at the scene. Bomb scenes are particularly difficult because as you might imagine, safety of the first responders is of the utmost importance! There can be thousands of pieces of evidence at a post-blast scene.

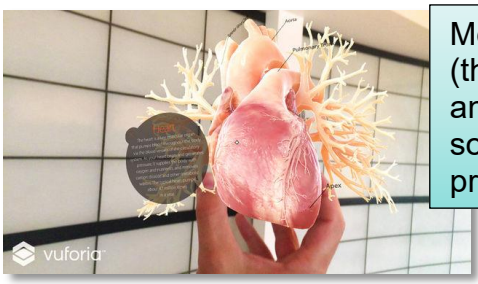
• Peter Hentze is a CSI with the Illinois State Police. There are only 30 CSIs in the whole state. (Locally, Champaign Police Department has about 10-12 on their "Crime Scene Unit"). Most Crime Scene Unit personnel are sworn officers in the state of IL. Other states may have civilian CSIs, however.

Meetings

I+T=E Retreat

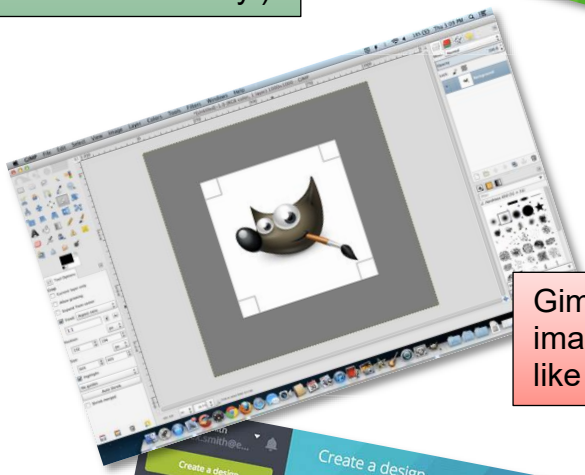
Written by Mindy Tidrick and Christina Beatty

We attended the Instruction + Technology = Engagement Retreat at Richland Community College on April 6. The Great-Teacher's-Retreat format included 10-minute take-aways where participants brought current, useful technology and taught others in brief 10-min round-table-like sessions. We attended larger group discussions and also got a free "merge cube" (stop by our office to see it in action!) Here are some of the FREE software we were introduced to. Let us know if you want more information!

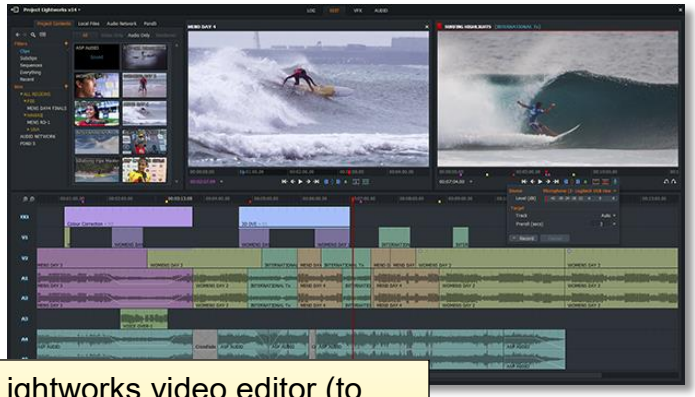


Merge Cube (think portable anatomage! Well, sort-of….but it's pretty cool!)

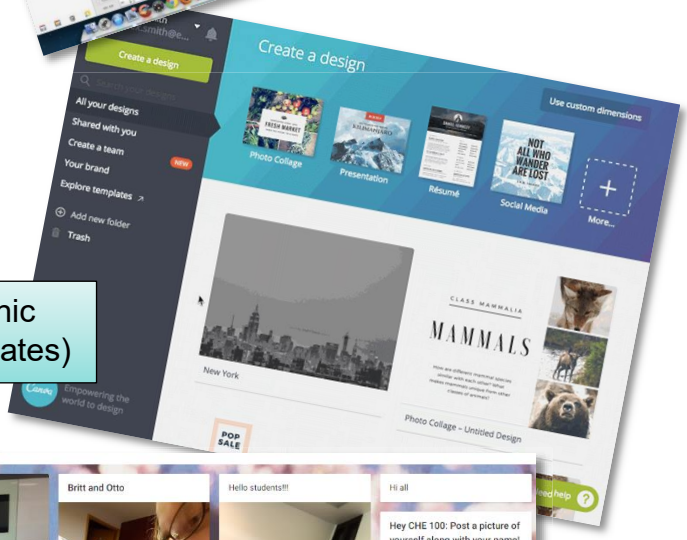
Kahoot quizzes (Christina plans to have students create these as a post-lecture follow-up and then later, they can use them to prepare for exams….ideally!)



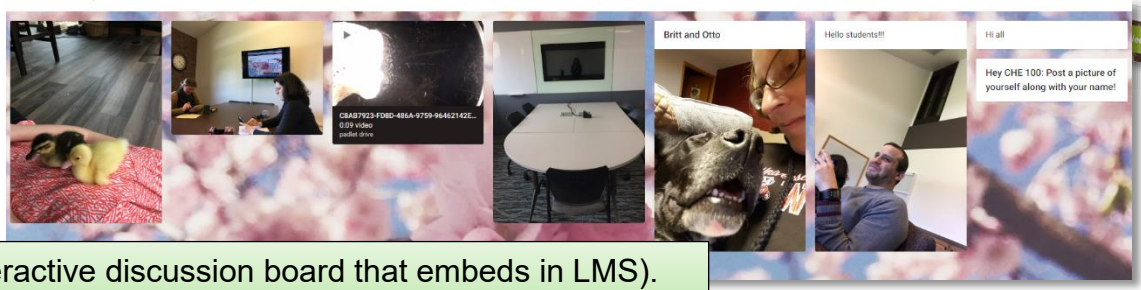
Gimp (free image editor like Photoshop)



Lightworks video editor (to edit and publish a screencast, like from Jing or Screen-Cast-O-Matic). It was even used to edit movies like The King's Speech!



Canva (graphic design templates)



Padlet (an interactive discussion board that embeds in LMS). Students can on-the-spot take a photo of themselves and post

Creative Endeavors

Written by Heidi Leuszler

Summer 2017 I started a Cottage Operation called Berries and Flour www.berriesandflour.com that combines several of my passions: cooking/ baking, exploring flavor combinations, fruit & vegetable farming, local food production, sustainable agriculture, food foraging, and ecology. I have harvested and "put up" fruits and vegetables from gardens, orchards, mountainsides, prairies, and ditches as long as I can remember and I am constantly subjecting my family to my cilunary experiments from old pioneer and modern cookbooks. I ask a zillion questions about ethnobotany of every new person I hike with, and I try every food I can wherever I travel. I own land and have a large prairie, a small orchard, and a garden. My field botany background has helped me to know what is edible and what is not in the wilds and I also have planted a Midwest Hedgerow, a plot of native edible plants like hazel (*Corylus avellane*), spicebush (*Lindera benzoin*), and elderberry (*Sambucus nigra*).

I put all of this produce in items like cakes, which was my focus of my bakery last summer. Some of the cakes are just full of fruit, and some require a little more adventure. It is important to me that the cakes taste like what they are made of, so I make everything by hand, use lower sugar, use the best quality produce, and don't skimp on the fruits and vegetables.

By using my own produce and that of the local farmers markets, I came up with good recipes last summer. I spent the winter making new recipes with a focus on a spring and wild plants. As well, the Illinois law has changed regarding what can be sold at markets for Cottage Operators, so I will expand to include lollipops, shrubs, flavored syrups, tea, and dry soup mixes featuring local and foraged produce. I have learned a great deal about local food security, and that personal experience has helped me introduce my students to the local food community. Already, several students have volunteered at local farms, some have applied for summer jobs, and most leave my classes with a good understanding of what goes into their food.

Photos: pumpkin spicebush cake, fondant yellow coneflowers for decoration, and vanilla cake with strawberry frosting

Honors in the Department

Chris Warren earns the Parkland Teaching Excellence Award

Written by Christina Beatty

It is my great pleasure to announce that Chris Warren, Associate Professor and Program Director of Kinesiology, has been selected by the Professional Development Subcommittee for Faculty as the recipient of our 2018 Parkland Teaching Excellence Award!

By students and colleagues alike, Chris is known to be a dedicated and encouraging teacher who has high expectations for himself and those around him. Students say that he creates a fun and engaging classroom environment where they look forward to attending class, and challenges them both personally and professionally. In addition to classroom teaching, Chris assists trainers and clients at the fitness center and monitors many Parkland athletes' training to assure their well-being. This type of involvement outside the classroom leads to strong relationships with students. Their gratitude for Chris's mentorship is reflected in the many thank you notes and updates he receives from graduates of his programs. Chris believes that the process of education is reward in itself - "Aiding the student in his or her growth, helping them master the subject material, and playing a role in his or her success in the academic world and the marketplace is why I dedicate myself to this journey."

Chris's colleagues all highlight his commitment to self-improvement and the betterment of the college. Since he has been at Parkland, he expanded the kinesiology curriculum to include four transfer pathways and helped to develop the Certified Personal Fitness Training program. He also oversaw the development of Parkland's state-of-the-art training and athletics facility. He is passionate about learning new technologies and implementing them in the classroom and community. Chris regularly speaks at regional and national professional conferences and in the community about exercise science, and often completes multiple certifications each year.

In his teaching philosophy, Chris says "Teaching is my chosen profession, but more importantly, it is who I am. I try to model the behaviors I expect from my students… As I prepare students for their chosen service profession, I want them to pursue the best version of themselves." His success in this endeavor is evident.

On behalf of the PCA Professional Development Subcommittee for Faculty, please join me in recognizing and celebrating Chris's inspiring commitment to excellence as one of Parkland's outstanding, award-winning faculty.

Congratulations, Chris!

New Faces

Amberle Browne

Current position?	Part-time instructor for Chem 204 (Organic Chemistry I Lab)
What has been the biggest challenge with working at Parkland College?	Getting started at an unfamiliar place is always a big challenge, but honestly, the people who helped me get into the swing of things made it an easy hurdle to overcome.
What has been the greatest perk about working at Parkland?	The people here are pretty amazing.
What one thing do you hope to accomplish at Parkland College?	I want to become the kind of instructor that can inspire students to extend their thinking and observation skills beyond the classroom.
Where were you before Parkland College?	I did some temp work at Wolfram Research. Before that, I was earning my PhD at Case Western Reserve University mainly synthesizing and characterizing gold(I) and (III) organometallics.
If money, time, gravity, and the space-time continuum were no object what one thing would you love to do?	I've read and watched a lot of science fiction, and I'd love to see the stars and explore alien planets. Really though, I would settle for being earthbound and getting to travel all over the world.
Anything else you'd like to share?	How about I share my hobbies? I'm an avid knitter, reader, and board gamer. I love to dance and bike. Additionally, I can wax rhapsodic about pop culture, podcasts, food, coffee, and musicals.

From the Planetarium

William M. Staerkel Planetarium News

Written by Dave Leake

PLANETARIUM TO UPGRADE SOFTWARE IN AUGUST

The Parkland College board of trustees also approved a software upgrade to take the planetarium from Digistar 4 to Digistar 6! "D6" was unveiled by Evans & Sutherland in 2016 (Digistar 5 came out in 2012). There are many new features in D6 including an open-captioning option, "domecasting" (meaning if someone is giving a presentation in another D6 facility, we can also show it in our dome), a volumetric Milky Way, the ability to fly over high-resolution planetary surfaces, and new cloud-source content that can be downloaded and shared, including content in biology, physics, Earth sciences, and the arts. There are also NOAA meteorological data sets that are updated weekly. Under the hood, there is a new user interface and an "auto-align" feature which will cut maintenance time as projector alignment will be made easy. The downside is that many of our self-produced programs and conversions of older programs, such as "Prairie Skies," "Amazing Stargazing," "Solar System Safari," "Odyssey," and others will have to be reprogrammed. You will find that we'll be running some of these programs this summer which will allow us to rely on other fulldome productions in the fall while the reprogramming is taking place. We will be closed for the upgrade beginning August 8 and going into the Labor Day weekend. We'll reopen to public audiences on September 7th. Funding for the project comes from the planetarium's foundation account, our revolving club account, and the college's master plan.

CUAS OPENS NEW OBSERVATORY

The Champaign-Urbana Astronomical Society opened a new observatory in April. The 24 x 30 foot structure doesn't look like the stereotypical astronomical facility. In fact, it appears like a storage shed with rails to the north. A motor slides the roof off to the north giving the telescopes inside a full view of the sky with a wind break. Illini Concrete poured the slab and a company called Backyard Observatories out of Lodi, Ohio, built the structure. Volunteers have been "detailing" the building with AC power, LED lighting, and of course several telescopes. The group hosts free public open houses on the Saturday closest to the first quarter Moon, weather permitting of course. There's a Parkland connection as Erik Johnson is the club's treasurer, Dave Leake is the current president, and lab tech Mike Conron has provided many volunteer hours at the site. Parkland astronomy students use the site for their class observing sessions. The site is located on 700E (Rising Road), south of the Monticello Road.

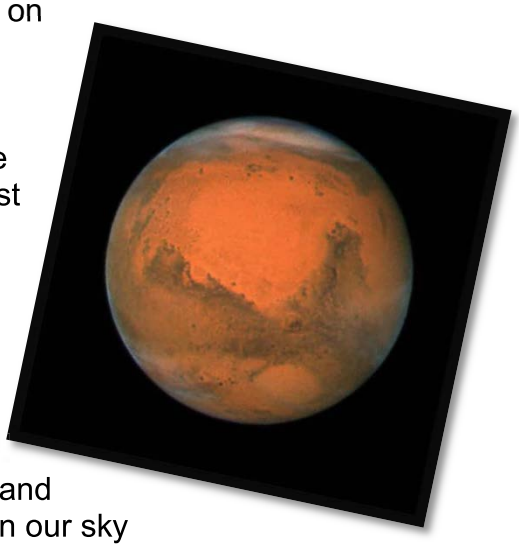
DARK SKY PARK WORK CONTINUES

The CU Astronomical Society and the Staerkel Planetarium are working with the Champaign County Forest Preserve District to acquire "Dark Sky Park" status for the Middle Fork River Forest Preserve. The initial application was submitted in late January. The International Dark Sky Association (www.darksky.org) provided some excellent feedback and a more formal application will be made this month. If successful, the Middle Fork will be the first Dark Sky Park in Illinois and one of only 43 DSPs in the country. There are currently 54 DSPs worldwide.

A DSP values the night as a natural resource, puts measures into place to preserve this resource, and provides educational programs for patrons that educates about light pollution.

CHECK OUT MARS THIS SUMMER

Every 26 months the Earth catches up to the planet Mars in its faster orbit. When Mars and our Earth are on the same side of the Sun, it's called an "opposition." From our point of view, Mars is opposite the Sun and thus rises as the Sun sets. But not all oppositions of Mars are equal. The Earth's orbit is a near perfect circle, but the orbit of Mars is more elliptical. In 2003 Mars was 34,546,418 miles from the Earth – about as close as the red planet has been to us in over 60,000 years! This July 31, Mars will be as close as it has been since that day in 2003. Of course anything close is bright in our sky plus appears quite large through a telescope. If you want to see surface features on Mars, the CU Astronomical Society will have telescopes set-up at Meadowbrook Park in Urbana on August 3 beginning just after dusk (August 4 is the cloud date). Just as a car appears to go backwards when you pass it on the highway, Mars will appear to stop and go backwards in our sky beginning in early July.



Snapshots in Time

All these years, John Moore thought Lori Garrett was a crazy-old-cat lady in training. ...Or was that "calf" lady? Here are the new "pets" currently residing in her sig fig's garage (instead of his car)--five calves total, all being bottle fed--three mostly black Angus and a set of white twins. So if anyone is interested in visiting this new (and hopefully temporary) petting zoo, just give Lori a call.

Manny Rodriguez helps a stunned blue jay -- it flew into the window and became unconscious. Manny went outside and blew air to its head until it woke up (his mom used to do that). It woke up and stayed in his hand looking at him until he put it on the bird feedet. Then, it flew away.

The Virginia bluebells were late this spring, but they were gorgeous! This photo, taken by Britt Carlson, was captured in eastern Champaign Co. along the Salt Fork River.

Nat. Sci. in Perspective

Reflections on the History of the Natural Sciences Department (Part II)

Written by Rich Blazier

The period from the early 70's to the mid-80's was a time of dramatic growth at Parkland. From 1970-1974 we added 4 more full time faculty in biology (Alice Pfeffer, Mike Postula, Vic Cox, and Woody Woodward). In the early 70's almost all of the sections of a course were taught by full-time faculty. Our lab monitors were part-time and many of them were graduate students at UIUC.

In 1980 and 1981 we added two more full time faculty (John Moore and Carolyn Ogren). By that time, two of the original five biology faculty had left so we ended up with 9 full-time faculty.

In the late 60's into the early 70's we were offering just a few courses -- general biology, anatomy and physiology, and microbiology. In the early years we were on the quarter system. Each quarter was 10 weeks in length, so for example, a full year of general bio was divided into three courses (Bio 101,102,103).

I'm not sure why the founders of Parkland went with the quarter system, but I suspect they felt it gave a greater degree of flexibility to students who were still searching for what they wanted to do. Parkland was not alone using the quarter system. Many other community colleges also used this system and even a few four year schools were on the quarter system.

In any case, after a relatively short time it became apparent it created more transfer difficulties than it was worth, and Parkland went to a semester system along with virtually all other colleges in Illinois.

Along with the increase in the number of students came an increase in the number of programs at Parkland, which lead to an increase in the number of courses we offered. As we added more courses and more sections of current courses, we began to hire part-time faculty to help teach.

Along with the expansion of courses (but not necessarily as a result of it) came a shift in our methodology. We moved away from a pure mastery learning system to a modified version. We went back to a more traditional format (lecture, lab) but kept what we considered to be the best parts of the mastery system (use of instructional objectives, repeating tests, lab monitors assisting students). We also began assigning a "course coordinator" to each course to be responsible for the development and operation of the course. This was especially crucial for those courses with multiple sections and multiple teachers. Later, this idea was carried over into the Natural Sciences Department.

Parkland biology students in the 1980s

REORGANIZATION AND THE BIRTH OF THE NATURAL SCIENCES DEPARTMENT

By the late 80's Parkland was experiencing a period of stress. It's founding President, Bill Staerkel had suffered a stroke, the college was entering financial hard times with a number of years of deficit spending, and enrollment was declining.

In 1987, Dr. Paul Magelli was hired as the new President of Parkland College. The Board wanted someone to get the college back on track…what they got was chaos. Magelli's leadership style was not a good fit for Parkland. He was often described as

abrasive and was subject to angry outbursts. His approach to solving the problems facing Parkland was perceived as heavy handed and not collaborative. The college was in turmoil. A number of staff resigned (most full-time tenured faculty adopted the “I can just wait it/him out” approach). The rumor mill was running at high speed. At one point numerous bomb threats were received. Faculty and staff morale plummeted and this finally culminated in a vote of no confidence by faculty, staff, and administrators by a 65% to 34% margin. Magelli resigned after a little more than two years and went on to a highly successful career as a faculty member at UIUC in the College of Business, being very well respected by students and his colleagues alike. A classic case of the wrong person in the wrong place at the wrong time.

One of the things that came out of the Magelli era was a total reorganization of the college. The goal was to save money. His original proposal was to organize the college along the lines you might see at a four year college or university. The Divisions would be replaced by “colleges” such as the college of Liberal Arts and Sciences (sound familiar?). He also wanted to eliminate all program directors and of course, Division Chairs.

This was not well received by the faculty and staff and was later modified into a proposal to have the academic side of the college divided into 10 departments each with a department chair. I believe that originally the Chair was to be only a 50% position with the rest to be teaching. But, that didn’t last very long and department chairs quickly became full-time administrative positions.

The Natural Sciences Department was formed out of disciplines from three former Divisions….Biology from the Life Sciences Division, Chemistry, Physics, and Astronomy from the Math and Physical Sciences Division, and Earth Sciences from the Social Sciences Division.

The departmental chairs were to be elected by the department faculty subject to the approval of the President. Vic Cox became the first Nat. Sci. Department Chair on July 1, 1988. At that time there was no office space for him so Vic’s “office” was in a corner of the secretarial pool. Eventually a small windowless space was carved out of the main office for him (which I also used for a few years after I became Chair).

Those first years must have been very interesting for Vic as the college was still in turmoil. Magelli was replaced for a year by an interim president. In addition, there was a new Vice President for Academic Administration (the Chairs reported to him) to get used to. In July 1990 Dr. Zelema Harris was hired. Vic did a masterful job of keeping everything together and functioning at a time of great change. My hat is off to him.

By the time I became Chair in July of 1993, things had begun to settle down. I became the newest member of a group of Department Chairs who for the most part, had been together for five years. They became my mentors and provided me with much appreciated help and advice. They were also very kind to a brand new and somewhat naïve Chair. I remember at one of our early Chair Council meetings (where we met with Dale Ewen, the new Vice President for Academic Services) I brightly announced that I never needed to take work home at night (I’d only been in the job a few weeks). They all looked at me and very kindly just smiled with that kind of smile that says “oh you poor boy…just wait”. They were right!

I was also learning a great deal from Zelema Harris. During her first two years as President, I was the Vice President and then President of the Parkland College Association. The PCA President and Vice President met on a regular basis with the President of the College and we learned a lot by watching the way she settled in to her new job and how she treated the faculty, staff, and the college Board.

Finally, I had the very great good fortune to be able to attend what was the best professional development opportunity I've ever had. The Chair Academy was formed by a group of academic leaders from the Maricopa Community College District in Phoenix, Arizona. The Academy put together a program specifically designed to train and educate prospective community college chairs and deans.

This was slightly over a year long program which required you to attend two one-week long workshops in June of each year during which you learned about virtually everything thing a department chair should know. It focused on training transformational as opposed to transactional leaders (I had no idea what the difference was).

This is where I finally understood what strategic planning was about, and where I learned about and discussed leadership styles. There were sessions on budgeting, planning, faculty and staff development, conflict management, time management, managing diversity, faculty evaluations, issues of part-time faculty, etc. This was an active learning situation with numerous opportunities for discussion and liberally laced with real live case studies.

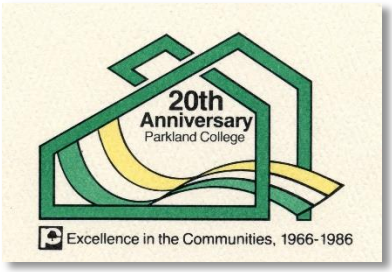
Almost all the participants were either new to their jobs as chairs (or equivalent leadership role) or were soon to starting a job in that role.

After the first week workshop (which, by the way, was in a ski lodge in the Colorado Rockies), we returned to Parkland and had to produce a plan of action for the upcoming academic year. We were expected to use the things we had learned and were also assigned a mentor (who had graduated from a previous Chair Academy program) and who checked in periodically with me.

The following June it was back to the Rockies (a tough job, but somebody had to do it) for the final week-long session. All in all, an outstanding program!

The Chair position was a 12-month full time administrative contract job. I've always thought it was one of the most interesting jobs at the college. Parkland chairs served three constituencies -- students, faculty, and central administration (all of whom often thought the chairs were in place exclusively for them). It kept things interesting and often exciting.

Because of this, the chairs were also at the information crossroads of the college with the flow of information coming and going almost constantly between the Chairs and the groups they served. The Chair Council made up of the ten chairs and eventually a few others, met regularly with Dale Ewen. At that time, there were relatively few layers of administration in the academic areas. I answered to Dale (Academic Vice President) who answered to Zelema (President). Because of this, the Chairs had



considerable influence on the decision-making process at the college. Dale relied on us and we on him. We may not have had a lot of absolute power, but we did have a great deal of influence and I would take influence over power any day of the week.

One of the areas where we had a lot of responsibility and influence was in the hiring process. This in my mind, was one of the most important activities of a Chair. Chairs helped write position announcements, put together search committees, sometimes served on them and had to sign off on the choices made. It was rare that new faculty and staff were hired without the Chair participating (and often influencing) the process. Chairs were also heavily involved in helping the college decide which positions (and how many) would be advertised each year. Each year we would submit our staffing requests to Dale. Some requests were no brainers and were automatically approved. Others weren't so obvious and there were always more of them than (each year the College Board set the total number of full-time faculty). Dale would turn the request list back to the Chairs and let us decide which positions to fill. These were often not easy decisions (how do you decide between an English or Biology position for that last slot?). We not only had to consider what was in the best interest of our departments but also the best interest of the college. In my experience the Chairs always rose to the challenge with civility and thoughtfulness. Dale always believed that decisions should be made wherever possible, at the level of the most information and this was an example of his belief put into action.

But I digress.

Because of a number of things, including my experience at the Chair Academy's professional development program, my interactions with my colleagues and the mentoring from my fellow Chairs and others, we set out to initiate a number of department activities and policies. Many of these were put in place as a means (at least partially) to help us develop a departmental identity. Others were designed to help us do a better job of planning or to provide better and more useful information to the faculty and staff.

Many of these are still in place in one form or another. Some have fallen by the wayside (it would make an interesting discussion as to why) but all of them I believe have been critical to the growth and development of the present day Natural Sciences Department.

So here they are (in no particular order) with a brief commentary on each:

1. **Department Retreat –** As I remember, the original idea of holding a departmental retreat occurred early in departmental history (maybe when Vic was Chair?) In any case, it became standard practice for the department to use Professional Development Day to find a place off campus where we could spend the day together. It provided us a chance to meet and learn what our colleagues in the department were doing and to just get to know one another better. I've always believed the retreats were a major contributor to our developing a strong departmental identity.
2. **Department Council –** This was another early adopted change -- in this case, to our departmental governance. For the first few years after being formed into a department, the various discipline areas acted pretty much independently of one another. As a holdover from the old Division days, they all had area coordinators who acted to as representatives of their areas to the Chair. I was uncomfortable with this arrangement for a variety of reasons and although it may have worked well when we were in Divisions, it seemed to work against the departmental identity idea. In addition, the college was becoming very interested in the idea of shared governance.

   A small working group was formed to see if a new form of departmental

governance could be created that was acceptable to the faculty. I think there were three of us…Andrew Holm (chemistry), Tod Treat (newly hired chemistry faculty) and myself (I told you it was small). Out of our discussions came the idea of a Department Council.

The area coordinators were replaced by Department Council representatives who were elected to the council by their area faculty. Part-time faculty also had a representative. The council would meet on a regular basis and would assist the Chair in department governance (including developing policy). For example, it was now the Council who decided how money would be allocated when developing a departmental budget for the upcoming year. In my view, Department Council was another major contributor to the development of a departmental identity. As I recollect, the Council idea was unique to the Natural Sciences Department at that time.

3. **Assistant to the Chair (AC) –** This idea actually came from another department. One or two departments began using "program managers" to assist the Chairs in handling some of the everyday tasks of running the department. We took the idea and expanded it. In our model, the Assistant to the Chair position was designed to not only assist the Chair in running the department by doing such things as evaluating part-time faculty or coordinating the assignment of faculty load but also as an opportunity for faculty who might be interested in being a Chair someday to see what the job was like. The AC received around 3 hours of release time each semester and was elected by the faculty for a defined term (2 years?).
4. **Student Evaluations of Faculty –** This had to do with how the results of the student evaluations of faculty were reported rather than anything to do with the evaluations themselves. Back then all faculty had to give out forms at the end of each semester that would allow students to evaluate them. The questions were standard for the whole college, but departments and faculty could add their own as well. There were approximately 25 questions and students answered on a rating scale of 1-5 with 5 being the highest score. The evaluation also allowed students written comments. The evaluations were tabulated by the college and then returned to the department office for distribution to the faculty. The faculty would get a print out which would show the numerical average for each question for a class section. Let's say you got a 3.9 score on question 12. What did that mean? Was that a good score, a bad score? You had nothing to compare it to.

   So what we did was have the college also print out the departmental average for each of the questions. Now at least there was something to compare those numbers to. In addition we set up a system to recognize faculty who had received outstanding evaluations. Two categories were set up with slightly different criteria. Category 1 was the hardest to achieve and Category 2 was also difficult to obtain but slightly easier. The computer folks would send me a list of all our department faculty (full and part-time) who had sections that had given them scores which would qualify them for Category 1 or 2. I would then send an e-mail to the department announcing that we had 'x' number of sections that gave their instructor evaluation scores that qualified them for Category 1 and 'y' number for Category 2. I would also announce how many of our faculty had achieved Cat 1 or 2 (no names -- the faculty didn't want that) and then I'd put a congratulations announcement in the mailbox of each recipient and also a copy in their file. Doing all of this served at least three purposes:

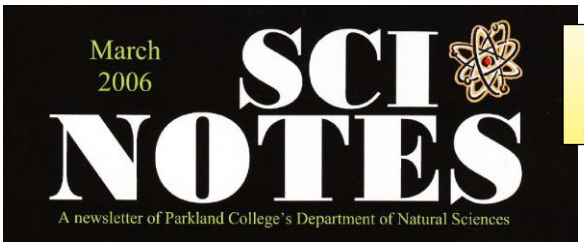
   a) It made the evaluations a little more useful to the faculty

b) Provided recognition for a job well done

c) Allowed me (and the faculty) to more easily spot trends in student evaluations over multiple semesters

5. **Department Strategic Plan –** Eventually our department decided to develop our own Strategic Plan. This was around 1999 and after Parkland had already developed a college wide plan. We did it with gusto, surveying all our departmental faculty and staff as well as many people outside of the department. All were asked to identify our strengths, weaknesses, opportunities, and threats (SWOT's). We tabulated and reviewed the results and produced a three-year (2000-2003) plan. We identified 6 areas of concentration and developed goals and objectives for each. Theoretically, the objectives would then be used to develop actual actions we would take.

   I believe we revised the plan at least one more time before I retired. I'm not sure how successful we were at achieving our goals, but I think the value was more in the process of developing the plan than in how well all goals were achieved.



6. **Department Newsletter –** Boy, has this changed! I'm not sure when the first newsletter was published (sometime in the 90's, I believe). The original purpose was to provide a means by which I could keep the department faculty and staff informed about issues, policies and the results of college meetings I had attended as representative of the department.

   I also wanted to provide a means for faculty to report on conventions, workshops or other professional development activities. I also tried to include news regarding interesting (at least to me) articles I had read regarding science education. Underlying all of this was the hope that it would help develop departmental identity (are you beginning to see a theme here?)

   Remember, the college only rolled out widespread e-mail service in 1995 so we were really back in the dark ages when it came to information dissemination. Using a very basic newsletter template we would crank out a 2 page both sides newsletter on colored paper. I think we were shooting for a monthly publication but I can't remember for sure. There were no pictures and no glossy paper. A big difference from the beautiful document you now have in your hands.

NEXT- The Department Discipline Areas

In the next (and last) installment I want to spend some time reflecting on the individual discipline areas of our new department and some of the things they accomplished in those early years. ***Look for this in the Fall 2018 Newsletter!***

Left: Newsletter header from Spring 2006 *Right:* Rich Blazier and a student (circa 1980s)

Many thanks to Cheri Cameron for help with these images from Parkland's archives!