

BYU COLLEGE OF

LIFESCIENCES

A Magazine for Friends & Alumni | Fall 2012

THE EIGHT-SEMESTER DEGREE: MYTH OR REALITY?

page 4

LEARNING
THE ROPES

page 7

THE LIGHT
OF SUCCESS

page 8

NEW FACULTY
JOIN THE
COLLEGE

page 10



DEAN'S MESSAGE: BETTER IS POSSIBLE



College is a time for students to acquire knowledge, achieve personal goals, and begin living adult lives. Adult privileges and opportunities come with responsibilities. College students need to learn that time is precious and should be used well. They need to decide where they want to end up, then do what is required to get there. Universities are not places for students to hang out while avoiding getting on with life.

In Spring 2011, *U.S. News* found in 1,206 colleges and universities that only 40 percent of full-time, nontransfer students graduated in four years.¹ Better is possible, though; ten schools had four-year graduation rates of 90 percent. According to Brigham Young University records, most BYU students take more than four years to graduate, even after corrections for time spent serving missions.

The cost of attending college, plus the even greater cost of delayed entrance into the workforce, should motivate students to graduate in a timely manner. A study conducted by University of Tennessee's Center for Business and Economic Research concluded "students who finish college faster are fundamentally different than students who take longer, in ways that influence later earnings."² The study found that students who complete their degrees

within four years make higher salaries than those who take longer. Those who take six years to finish make less, although still more than those without degrees. Those who take more than six years to finish have incomes equivalent to those who never finish.

Since the number of students Brigham Young University can accommodate is limited, the only way a new student can enter is if a current student exits. Of all the incentives for students to complete their work efficiently, this may be the greatest. Every year, more students apply to attend Brigham Young University than ever before. The number of qualified students waiting for a spot is growing.

The College of Life Sciences is committed to address this problem by helping students succeed. Student services, the faculty, the administration, and families can all help. The stories, ideas, and suggestions in this magazine are a good place to start.

A handwritten signature in blue ink that reads "Rodney J. Brown". The signature is fluid and cursive.

Rodney J. Brown

1. <http://www.usnews.com/education/best-colleges/articles/2011/05/03/10-colleges-with-highest-4-year-graduation-rates>
2. <http://www.utk.edu/tntoday/2012/06/18/study-students-complete-degree/>

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Cover Story 4

Obtaining a General yet Practical Degree in Eight Semesters: Myth or Reality?



New Faculty 10

A Gradual and Cautious Thaw: New Faculty Join the College



A Faculty Perspective 7

Learning the Ropes to Set and Trim Your Sails



Noteworthy 12

New Department Chairs



A Student Perspective 8

The Light of Success: Nour Qutob



Retirees 14

Six Faculty Members and Two Staff Retire from the College

BRIGHAM YOUNG UNIVERSITY
PROVO, UTAH

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James P. Porter, Associate Dean

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OBTAINING A GENERAL YET PRACTICAL DEGREE IN EIGHT SEMESTERS: MYTH OR REALITY?



By Brad L. Neiger, Ph.D., MCHES
Associate Dean, College of Life Sciences

TWO YEARS AGO OUR SON JACK GRADUATED from BYU with a bachelor's degree in psychology. As tuition-paying parents, my wife and I were proud of his accomplishment and thankful he graduated in four years with exactly 120 credit hours (the minimum number of credit hours required by the university for graduation).

Jack was exposed to a new world of knowledge and reasoning in the arts and sciences at BYU and received a very good general education. But he also focused on his preparation for graduate school that would eventually lead to employment in a psychology-related field. This dual concentration on general but practical education relates to a current debate within higher education on the fundamental purpose of the university. One position argues that the role of higher education is to use the liberal arts model and expose students to new ideas, knowledge, and intellectual challenges and that employment is the students' and not the university's responsibility. Another position contends that while there are many benefits to a college education, its main objective is to prepare students for the world of work and that if students are ill prepared for employment, the university has failed.

My belief is that both positions are correct and that the university fails if either of the two objectives goes unmet. While our son studied many subjects in many courses that helped refine him and sharpen his reasoning ability, he immersed himself in psychology and took advantage of mentored learning experiences facilitated by BYU, including a valuable internship that substantially prepared him for life after graduation.

Some might argue that if students are to be prepared in both general and practical ways, they will stay too long at the university and deprive others of a BYU education. My son's experience begs the question: Can students really acquire a broad general education at BYU and still be competitively prepared for either employment or graduate study, all within four years? My response is yes, with a few qualifications.

First, the university and its faculty must assume the responsibility to provide a general education that is intellectually enlarging while still preparing students for viable futures, mainly through their selected majors. Second, some students work their way through college without the benefit of sponsors, grants, or student loans, thereby taking longer to complete their degree requirements. And other students experience health or other personal challenges that slow their progress. While these students may not finish in four years, they can still work to complete their undergraduate education in eight semesters with only necessary breaks in between.

Graduating in eight semesters requires foresight and planning. For example, students who decide on a major prior to arriving at BYU have an advantage in finishing within the eight-semester time frame. Where this type of pre-BYU decision making does not occur, limiting coursework to general education classes in the first few semesters allows students more time to select an appropriate discipline while avoiding changes of majors and delayed time to graduation. BYU's Career and Academic Success Center can be helpful in this process. For some majors, taking general education courses exclusively in the first few semesters may not be a good strategy. College advisement centers across campus can assist students with these decisions.

Some students delay graduation because of varied learning interests and educational pursuits beyond their declared majors. One reason to avoid taking any class at BYU that does not contribute directly to the 120 minimum credit hours required is that a wealth of knowledge on just about any topic is available online. As more universities such as Harvard, Stanford, Johns Hopkins, and MIT offer free online courseware, and as other creative ventures such as iTunes University and the Khan Academy use expanding technology to provide educational offerings, students can pursue lifelong learning interests after they graduate. With the exception of mentored research or field experience such as internships, there is really no need for students to take additional courses at a university beyond major and degree requirements when such unprecedented learning opportunities are available online at little or no cost.

As parents, faculty, and administrators, we must do better at helping students move through their BYU education in eight semesters. As more students graduate in less time, still more students will have the opportunity to benefit from the BYU experience. After all, a BYU education is designed to be spiritually strengthening, character building, and helpful to students in their quest for eternal life.¹

Most BYU graduates are uniquely prepared to serve and lead in their families and in the Church, enjoy substantial success in their jobs, and make a positive impact in their communities. In addition to cost savings, an eight-semester program transitions students to these spheres of influence much sooner. As even more students are then exposed to what BYU offers, the net gain to the Church and to society is increased substantially.

1. <http://aims.byu.edu/p/aims>

MAKE EARLY DECISIONS



Cameron Pitcher, an August 2012 public health graduate, has his sights set on the future, a future that includes medicine. “I didn’t start my undergraduate education until after my LDS mission,” Pitcher says. Once he was accepted to BYU and began school, he decided on his major, mapped out his classes,

and went to work. “There was definitely a big difference in how I viewed school [once I decided my major],” Pitcher explains. “Classes seemed easier, and I felt like doing my homework.”

Coming from a family of six children, Pitcher grew up in Medicine Hat, Alberta, Canada. All five of His siblings have careers in medicine-related fields, so it seemed the natural path to follow. “I always liked science in high school,” he says, “but I wasn’t sure about following my siblings into the medical field.” During his sophomore year at BYU, Pitcher enrolled in Student Development pre-med courses, volunteered in a local hospital, and shadowed doctors in their practices. This combination of experiences helped him get a real sense of what a career in medicine might be like. “The classroom experience doesn’t tell you what a career will be like; you have to discover that on your own, outside of class,” Pitcher explains.

Through volunteer work at Utah Valley Regional Medical Center, Pitcher became aware of the Maternal Fetal Medicine Lab experience. Funded by the University of Utah in conjunction with Intermountain Health Care, the program employs students in a working lab at a local hospital or medical center. These hands-on experiences solidified his choice of major and future career.

With this newfound direction and determination, Pitcher sprinted toward the “finish line” and graduated in a total of eight semesters. Program-overview courses and career workshops are designed to assist the student in choosing a major. Then, internships and hands-on learning help to fortify one’s choice and provide invaluable experience. The sooner students decide on a major, the sooner they can see the “undergraduate-degree finish line.”

“I would definitely recommend . . . to incoming students that they decide on a major right away,” Pitcher says. “Figure out what you like to do, not just what career will pay well, or what someone else wants you to study,” he advises. “Then,” he continues, “efficiently map out your classes. The less time [a student] spends in school the sooner they can begin doing the things they love to do.” “After all,” Pitcher wisely concludes, “40 to 50 years is a long time to do something you aren’t happy doing. Money isn’t everything.”

BYU ATTENDANCE STATISTICS

Brigham Young University, sponsored by The Church of Jesus Christ of Latter-day Saints, is part of the Church Educational System, which serves more than 1.2 million people in 144 countries worldwide.

BYU–Provo: 2011–2012 Undergraduate Profile

Total enrollment of all daytime students: 30,290 from 110 countries

- Applied: 12,705 — Admitted: 7,101 (55.9%)
- BYU student retention rates (percentage of full-time, first-time freshmen who are still enrolled the following fall): 85% in fall 2011
- Ratio of male to female students in fall 2012: 52% male; 48% female
- Average ACT/SAT exam score in fall 2012: 28.4/1270
- Average high school GPA of incoming freshman in fall 2012: 3.81
- Bachelor's degrees awarded December 2011–August 2012: 6,814

BYU–Provo: 2012–2013 Fall/Winter Cost of Attendance

Two Semesters

- LDS undergraduate tuition: \$4,710
- Room and board: \$7,200
- Average books and supplies: \$972
- Average personal expenses: \$2,164
- Average transportation costs: \$2,424
- Loan fees: \$60
- Total LDS undergraduate cost: \$17,530

For 2013, *U.S. News and World Report* ranked BYU 68th out of more than 1,400 four-year accredited schools in the “Best Colleges” category, 15th in the “Great Schools, Great Prices” category, and 5th in the nation for college graduates with the least amount of debt.

Sources: BYU Registrar's office; <http://news.byu.edu/archive12-sep-usnews2013.aspx>; <http://finserve.byu.edu/content/tuition-and-general-fee/>; <http://assess.byu.edu>; <http://saas.byu.edu>

ANXIOUS TO MOVE ON



An August 2012 graduate from the Nutrition, Dietetics, and Food Science Department, Lindsay Stephenson received a bachelor's degree in dietetics. She is ready and anxious to begin life after school.

Stephenson will become a first-time mom in November 2012. “Although I have loved

BYU and will miss it,” she says, “I am anxious to move on and apply the skills and knowledge that I learned at BYU in my everyday life.”

When Stephenson came to BYU exactly eight semesters ago, she knew she was interested in helping people with health issues. Since she had a strong aversion to blood and needles (and disliked science in high school), nursing and medicine seemed out of the question. When a family member was found to have an eating disorder, Stephenson's interests turned to dietetics. She enrolled in Introduction to Dietetics, and that course confirmed her thinking that dietetics was the perfect major for her. “After deciding my major,” she explains, “there was a comfort from knowing that I would now have an academic focus and be doing something I love.”

Working closely along the way with advisor Dr. Nora Nyland, Stephenson earned her B.S. degree in exactly eight semesters—a very efficient and wise use of her time at BYU. “Time management is key. Dr. Nyland kept [me] on track,” she says.

It is important to start the process of choosing a major early. The University Advisement Center recommends that students investigate the majors that interest them and then take introductory or seminar courses for the majors or careers they are considering. For example, LFSCI 101, Life Sciences Seminar, provides an overview of all the departments and majors in the College of Life Sciences.

There are advantages in choosing a major early. Aside from the obvious cost savings, by moving efficiently through one's undergraduate degree program and graduating in eight semesters, students are ready for graduate school or careers ahead of many of their peers, and it gives other students the opportunity to experience BYU.

Stephenson's advice? “Decide your major early and develop a plan to get through school. Be involved and take advantage of opportunities and experiences outside of class that apply to your major. Take introductory courses that provide an overview of what is available. Most of all,” she concludes, “don't be afraid to do what you love to do.”

LEARNING THE ROPES TO SET AND TRIM YOUR SAILS

By Allen Parcell,
Ph.D. Health Science



TO SET AND TRIM A SAIL MEANS TO HOIST it up on the mast and adjust it so that the sail will catch the wind and drive you forward on your journey. Failure to set your sails effectively will leave you floating aimlessly at sea. To set and trim sails on a sailing ship, you must have a knowledge of the rigging and ropes that control the sails. A new recruit on a sailing vessel would be sent up in the rigging and sails to “learn the ropes” on his way to becoming an experienced sailor. The idiom “learning the ropes” is used today to describe the process of learning the tasks and details of a new responsibility.

Students at BYU are required to navigate the many majors on campus. There are many ropes—or resources—to be used to complete required courses, select a major, and make a coursework plan. Learning the ropes early in your college experience allows you to set your sails and progress in an efficient and timely fashion to graduation. Following are three basic suggestions that are derived from my experiences in advising undergraduates. Students who ignore these guidelines often find themselves “lost at sea,” but those who follow them find they can easily stay on course and achieve their academic goals.

1. Take classes in order. This may seem elementary, but I have advised many students who chose not to follow such a simple plan. Completing GE requirements and 100 to 200 level courses in your early semesters will expose you to the broad offerings at the university and help you in your search for a major. This simple plan will allow you to focus on upper division courses in your chosen major during your last semesters without having to go back and take required introductory courses. Students anxious to take

upper-division courses without the appropriate prerequisite preparation often flounder in these rigorous courses. They are disappointed in the grades they receive and have to retake courses. Following the 100 to 400 model invariably results in efficient use of time and tuition dollars.

2. Use MyMap.¹ Study and become familiar with your major’s MAP and use it as a guide to plan your semesters. Make a coursework plan all the way to graduation. If you have a complete plan to graduation, it is much easier to make course adjustments if obstacles arise. Using MyMap will facilitate efficient use of fall and winter semesters and spring and summer terms. It will help you plan feasible, balanced course loads from semester to semester and prevent you from having to catch up later in your college career. In the end, this may save you time and tuition.

3. Meet with your advisors. They know the ropes. After making your coursework plan, visit with a counselor in the advisement center. The Life Sciences Student Services Center² is capable of rescuing you late in your college career if you are suffering from poor planning or uninformed decisions. However, the advisement counselors are also very effective in helping you “trim your sails” and fine-tune your voyage through the university, especially after you have studied your MAP and made an initial coursework plan to graduation.

These guidelines will help you improve your journey to graduation. A little careful planning will help you set and trim your sails effectively for an efficient and enjoyable educational voyage.

1. <http://saas.byu.edu/registrar/mymap/>

2. <http://lifesciences.byu.edu/studentsservices>

THE LIGHT OF SUCCESS: NOUAR QUTOB

I FEEL A STRONGER HEART IN ME; I SEE A thoughtful mind, a determined soul, and an ambitious spirit. These are the products of my life at BYU,” explained Nouar Qutob on her graduation day only five years ago. Qutob came from a difficult life in Palestine, a life full of “turmoil, devastation, . . . and violence.” Qutob gratefully reflected that when she received a scholarship from the Jerusalem Center, “hope gradually found its way back,” and “the light of success shone upon me.” She immersed herself in the BYU experience. She joined the Honors Program, worked as a research and a teaching assistant, completed a rigorous internship, and still managed to graduate in four years.

When she arrived at BYU, Qutob was nervous about leaving her family and fitting in with people whose culture and customs seemed so different from her own. However, she was readily welcomed into the BYU community. She describes her experience with the Honors Program as “overwhelmingly positive.” The program gave her new perspectives of the world around her. Qutob graduated with a major in bioinformatics and a minor in health education. In writing her Honors thesis, she gained valuable experience in research, which would be important for her future career.

[Qutob works at her internship at the University of Michigan.](#)





Qutob celebrated her graduation from BYU with her family and, on the left, Dr. Clark, who was instrumental in helping her come to BYU

Qutob completed an internship at the University of Michigan. During that time, she was hosted by the family of Dr. Avi Eisburgh. Her connection with the Eisburgh family is worth mentioning. It is a story that shows the whole world how war finds no place in the hearts of good people.

After her first semester at BYU, Qutob was in New York waiting for her flight home. She and twenty other passengers were informed that the flight was overbooked and that they would need to stay overnight. “I was still a freshman,” she explains, “and fear filled my heart.” It was then that she met the Eisburghs, a Jewish family on their way to visit their relatives in Tel Aviv. They too had been bumped from the flight. The Eisburghs were very kind and helpful to Qutob throughout the ordeal. “We kept in touch [after that],” she says, “and when I went to Michigan [for my internship], they were kind enough to let me stay with them. Despite all the hatred buried between Palestinians and Israelis, we built strong bonds of friendship and developed a close relationship.”

During Qutob’s attendance at BYU she experienced cultural obstacles, which are sometimes challenging for international students. It would seem reasonable that they might require additional time to graduate. Considering her involvement in the Honors Program, her work as a research assistant, her job as a teaching assistant, and her additional internship experience, it is remarkable that Qutob was able to complete her undergraduate degree in such a timely manner. She concedes that her undergraduate experience at BYU was a little stressful at times, but it was very fulfilling.

Qutob is now well on her way in her life’s journey. She returned to Palestine with a bachelor’s degree and a greater appreciation and understanding of many

things. In the five years since receiving her bachelor’s degree, She has earned a master’s and a doctoral degree from Cambridge University, all before her twenty-fifth birthday. She now works at the Al Quds Bard Honors College as an assistant professor and as the head of the Science Division of the college. She is also vice president of the Palestinian Forum for Medical Research, a nonprofit organization that supports scientific medical research. Qutob has already published her first paper in *Immunogenetics*.¹

In her graduation speech at BYU, Qutob said that her goal was to “make a difference in [her] community and bring happiness into [her] people’s hearts.” Now she feels that she is able to make that difference through her teaching and research. She calls her time at BYU “a flash of inspiration” that has helped her find a path that “leads to success and brings [her] dreams into reality.”

1. <http://www.ncbi.nlm.nih.gov/pubmed/21947542>



Qutob graduated with her master’s and doctoral degrees in population genetics from Cambridge University.

A GRADUAL AND CAUTIOUS THAW: NEW FACULTY JOIN THE COLLEGE

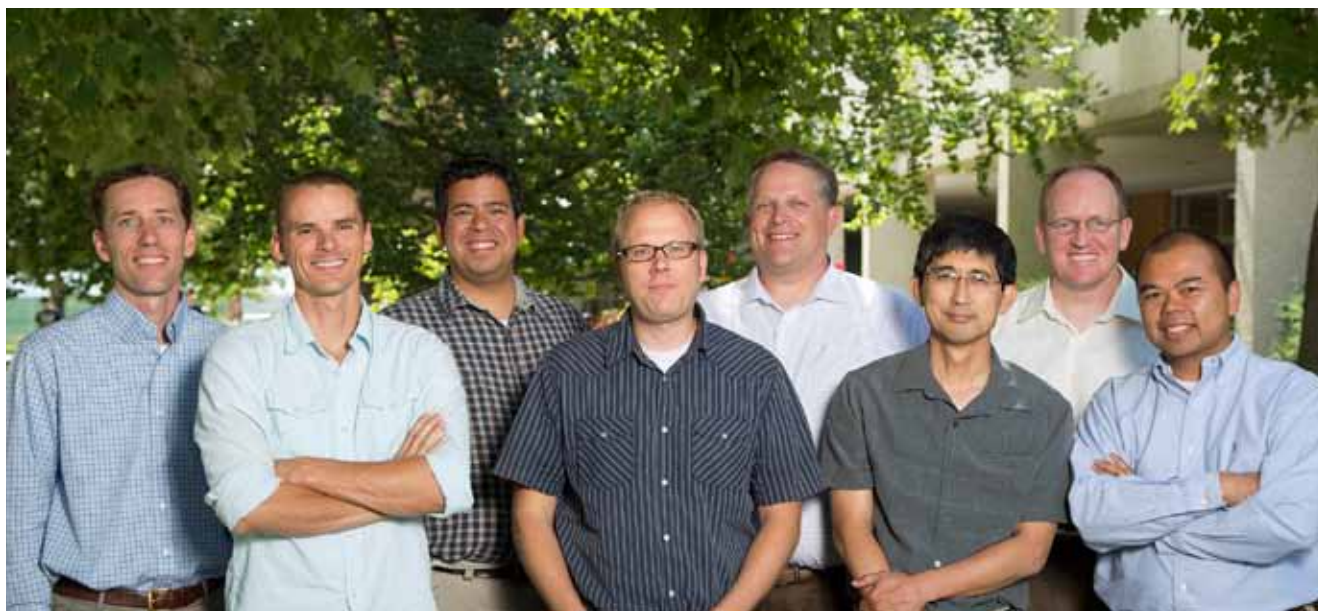
IN RESPONSE TO THE ECONOMIC DOWNTURN IN 2008, BYU declared a university-wide hiring freeze, prohibiting the hiring of new faculty. In December of 2010, almost exactly two years later, the freeze was lifted, but the “thaw” has been gradual and done cautiously.¹ These prohibitive circumstances may have worked in favor of the College of Life Sciences, ensuring that the “best of the best” fill the teaching and research vacancies in the College: some new hires had time to finish their graduate work or complete other qualifications over the two-year freeze, and circumstances for others might not have been right for them to apply during this time period. As a result, the College is building up an excellent team of new professors and researchers.

“Our new faculty members are highly qualified and have a strong potential for success,” states Associate Dean James “Jim” Porter. So how does BYU attract such great faculty? There are many reasons new faculty come to BYU—the wonderful atmosphere, the extensive research opportunities, and the excellent students are only a few.

Many are drawn to “the opportunity that BYU affords for learning by ‘study’ and by ‘faith,’” Porter explains. Notwithstanding the excellent environment to foster both faith and science, the attractiveness of BYU “would not be sufficient to draw excellent new faculty members if the scholarship was not also strong,” Porter points out. “It is a testimony to the strength of our current faculty that we have been successful in attracting such good new faculty.”

But above all, the most exciting aspect of coming to BYU for new faculty is the prospect of working with the intelligent and engaged students. Many new faculty members note their excitement to work with “mature,” “responsible,” and “serious” students both in the classroom and in the lab. The College welcomes these eight new faculty members with excitement and great expectations.

1. Jamshid Ghazi Askar, “BYU Ends Hiring Freeze, Will Fill Jobs Gradually,” *Deseret News*, December 10, 2010, <http://www.deseretnews.com/article/700090658/BYU-ends-hiring-freeze-will-fill-jobs-gradually.html?pg=all>.



Scott Weber, Robert Hyldahl, Juan Arroyo, Seth Bybee, David Bearss, Roger Koide, James Johnston, and Jonathan Wisco (l–r) are the most recent faculty to join the College of Life Sciences.



Juan A. Arroyo

Physiology and
Developmental Biology

Before coming to BYU, Dr. Arroyo worked at the University of Kansas Medical Center, where he was researching to find factors that can

affect trophoblast invasion during complicated pregnancies. Dr. Arroyo hopes to be able to help students “develop a deep passion for science” as he has by learning, applying knowledge, and seeing how everything comes together through science and research. “What is amazing about BYU is that the students here get a great education, and, at the same time, grow so much spiritually, allowing them to become great professionals with amazing values. I wanted to be a part of that.”



David J. Bearss

Physiology and
Developmental Biology

After studying at BYU as an undergraduate, Dr. David Bearss is excited to be back. Most recently, he worked as an associate professor at the

University of Utah and at the Huntsman Cancer Institute, where his focus was on finding pathways in cancer cells that are altered during the process of tumorogenesis and give rise to some of the unique properties of cancer cells. Dr. Bearss hopes to “inspire students to develop a critical thought process in life and be able to understand, interpret, and act on data. I am excited to have the freedom to express my testimony and experiences in the classroom and laboratory in a way that I have never been able to before.”



Roger T. Koide

Biology

Dr. Koide has been a professor at Pennsylvania State University for the past twenty-six years and is happy to join the faculty in the Biology Department. Dr. Koide is an ecologist focusing on plant and fungal ecology. “I very much

enjoy working with and serving college-age people,” he says. He is excited to work with BYU students and to research new ecosystems, and have the “opportunity to influence students in a positive way, both in and outside the classroom.”



Robert D. Hyldahl

Exercise Sciences

Dr. Hyldahl is excited for opportunities to research and teach in the Department of Exercise Sciences. He has been working as a visiting assistant professor at the University

of New Mexico. His long-term research interest is in the morphological, cellular, and molecular response of skeletal muscle tissue to various stimuli, particularly disuse and damage. He is “supremely excited for the opportunity to work at BYU” with such high-quality students and faculty. “The [Exercise Sciences] Department has excellent resources, and I [see] great potential for success in both research and teaching at BYU.”

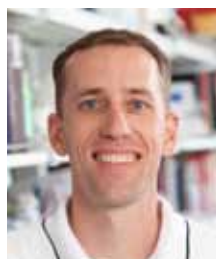


James D. Johnston

Health Science

Dr. Johnston has been working as a research professor for the University of Utah’s Department of Pediatrics at the Cache County Center for the National Children’s Study. His

research interests are focused on environmental monitoring methods to evaluate children’s activity-specific inhalation exposures to house dust. In his new role in the Department of Health Science, Dr. Johnston is looking forward to working in an environment that supports learning “by study and also by faith. I am very impressed with the caliber of the students from BYU.”



K. Scott Weber

Microbiology and Molecular
Biology

Dr. Weber has spent the past few years as an instructor of pathology and immunology at the Washington University School of Medicine in

St. Louis. He is interested in how the immune system responds to infectious disease and how this response can be improved. Dr. Weber is looking forward to teaching, mentoring, and interacting with students, an opportunity he sees as “one of the most satisfying parts of an academic career,” and also looks forward to helping students learn “how to ask good questions and design ways to determine the answers.”



Jonathan J. Wisco

Physiology and
Developmental Biology

Before coming to BYU, Dr. Wisco was an assistant professor of integrative anatomy at David Geffen School of Medicine. In his research

he has been working on validating imaging biomarkers for Alzheimer's disease. Dr. Wisco hopes to "be a positive influence on students who are pursuing knowledge and truth" as he mentors them on their various career paths. He is also "especially drawn to the multiple areas of research opportunity and collaboration with exemplary members of the faculty."



Seth M. Bybee

Biology

Dr. Bybee is an evolutionary biologist interested in vision, flight, and molecular evolution. Before coming to BYU, he completed a postdoctoral fellowship at the University

of California–Irvine, where he studied the evolution of butterfly vision and color. Dr. Bybee is excited to mentor students, helping them analyze and appreciate data. "BYU is a great place to combine both spiritual and intellectual perspectives in the classroom. This is something that I think allows students to really engage a topic."

NEW DEPARTMENT CHAIRS



Dennis K. Shiozawa

Biology

May 15, 2012



Dixon J. Woodbury

Physiology and
Developmental Biology

August 1, 2012



Eric N. Jellen

Plant and Wildlife Sciences

August 1, 2012

Dennis K. Shiozawa

Dennis K. Shiozawa was named chair of the Biology Department on May 15, 2012. He has been a BYU faculty member since 1978. In 1982 Shiozawa was appointed Curator of Fishes in the Monte L. Bean Life Science Museum. He has served as associate department chair since 2006.

An aquatic ecologist, Dr. Shiozawa earned his bachelor's degree in zoology from Weber State College, his master's degree in zoology from BYU, and his Ph.D. in fisheries from the University of Minnesota–St. Paul. Shiozawa has taught life science classes, such as ecology, ichthyology, and limnology, and has served as a mentor for graduate and undergraduate students interested in aquatic ecology and biogeography. In 2007, Shiozawa received the Wesley P. Lloyd Award for Distinction in Graduate Education.

Shiozawa's research covers a wide variety of topics within aquatic biology: trophic interactions in aquatic systems, life history and food habits of various fishes, and phylogenetic relationships among western fishes. His main research focus is the phylogeography of western North American aquatic taxa relative to drainage changes in western North America, mainly from the Miocene through the end of the Pleistocene. His research has been published in journals such as the *Journal of the North American Benthological Society*, *Aquatic Biology*, *Conservation Genetics*, *Biological Journal of the Linnean Society*, and *Transaction of the American Fisheries Society*.

Shiozawa was born in Logan, Utah. He and his wife have two daughters. He enjoys spending his free time on photography, gardening, and, of course, fly-fishing.

Dixon J. Woodbury

"It's a great honor," Dr. Dixon J. Woodbury said as he explained his feelings about becoming the chair of the Physiology and Developmental Biology Department. He appreciates the support of the department as he takes on his new duties, and he feels blessed to be working with such an outstanding group of faculty.

Woodbury earned his bachelor's degrees in chemistry and physics from the University of Utah and his Ph.D. in physiology and biophysics from the University of California–Irvine. After post-doctoral research at Brandeis University and at the Howard Hughes Medical Institute, he spent eleven years teaching at Wayne State University School of Medicine.

Woodbury has taught courses in physiology, biophysics, and neuroscience since he joined the faculty of BYU in 2001. He loves the outstanding quality of the

students. "It is a delight to work with them," Woodbury explained. During his time at BYU, he has received a College Professorship Award and a College Creative Achievement Award. He has also been a member of the University Graduate Council, the University Academic Review Committee, and chair of the Physiology and Developmental Biology Graduate Committee.

Woodbury focuses his research on cellular and molecular physiology. According to Woodbury, this biology field that he loves so much "has the good questions" and he feels fortunate to be able to study human physiology knowing "we are God's greatest creation."

He is excited about his new assignment, and hopes to move the department forward and strengthen it by facilitating communication between faculty while maintaining the high standards of teaching, research, and service that already exist.

Eric N. Jellen

Dr. Eric "Rick" Jellen's favorite thing about working at BYU is the camaraderie he has with his colleagues and students. And although he will miss some of his time with students, he is excited to start a new chapter at BYU. Effective August 1, 2012, Jellen assumed the role of department chair in the Plant and Wildlife Sciences Department.

Jellen has always been interested in plants and became interested in molecular genetics as a student—and his educational career has combined these two areas perfectly. He completed his bachelor's degree in agronomy at BYU and received his master's and doctorate degrees in plant breeding from the University of Minnesota.

Regarded as one of the premier oat cytogeneticists in the world, Jellen focuses his research on "the chromosome structure of modern, primitive, and wild strains of oats, quinoa, and amaranth." He is interested in these particular crops because they are genetically complex. Jellen especially enjoys studying quinoa and amaranth because they are grown by impoverished subsistence farmers and they are hardy enough to withstand harsh growing conditions, such as those found in the Andean region—the same area where he served his LDS mission. Through his research, Jellen has been able to work with other subsistence farmers around the world to help them improve their nutrition and increase their income.

Jellen was raised in Los Angeles. He met his wife, Trish, when they were undergraduate students at BYU, and they have four sons.

RETIREES



John S. Gardner

John S. Gardner retired on September 1, 2012. He received his bachelor's degree in zoology from Oregon State University and his master's and doctorate degrees in botany from BYU. Gardner has been an influential educator at BYU and across the state for 23

years. As director of the BYU Electron Microscopy Lab since his hire in 1989, he has built an excellent facility that serves many areas on and off campus.

Gardner also served as the director of the Central Utah Science and Engineering Fair (CUSEF) from 1994 until his retirement. Through this program, 30,000 fifth-through twelfth-grade students participate in science fairs annually. Gardner feels that one of his greatest accomplishments while working at BYU has been building CUSEF into the influential program that it has become. For his dedicated service to the organization, he was recognized with the Dick Peterson Lifetime Achievement Award. Gardner also received several other university and college awards for his service, including the Karl G. Maeser Professional Faculty Excellence Award, the College Outstanding Mentor Award, and the Benjamin Cluff Award.



R. Ward Rhees

After a fulfilling career of 39 years, R. Ward Rhees retired on September 1, 2012, and plans to travel, write his life history, and spend time with his family.

Rhees began his studies at the University of Utah, where he received his bachelor's degree in pharmacology. He received his Ph.D. in physiology at Colorado State before returning to the University of Utah to complete his postdoctoral research in anatomy.

Rhees has a passion for teaching and a love for his students as evidenced by the numerous awards he has received, including the Karl G. Maeser Excellence in Teaching Award. He has a gift for developing close bonds with his students and instilling in them enthusiasm for physiology. Of all the recognitions he has received, the greatest came when, on the last day of class, each of his 250 students presented him with an apple and a note of appreciation for his efforts.



Von D. Jolley

"Thanks to BYU," says Von D. Jolley, "for providing such great and varied opportunities." Dr. Jolley retired on September 1, 2012. He earned a bachelor's degree in agronomy from BYU, and a master's and a doctorate degree in soil fertility from Iowa State University.

Jolley worked for 35 years at BYU, where he balanced teaching, research, and citizenship. Jolley's research focused on plant nutrition, soil testing, and plant analysis. His integration of undergraduate and graduate students into research extended BYU's influence in his field nationwide. Jolley has been recognized widely for teaching, research, and citizenship. He is a fellow of both the Soil Science Society of America and the American Society of Agronomy, and a recipient of the BYU Abraham O. Smoot Citizenship Award and the College Outstanding Mentor Award. Jolley finds great satisfaction in witnessing students gain the confidence to pursue successful careers in soil and plant sciences; his work has been very rewarding.



Elaine Rotz

Elaine Rotz, advisement assistant in the Microbiology and Molecular Biology Department, retired April 1, 2012. During her nine years at BYU, Rotz made countless contributions to the department. From 2008 to 2010, a church-wide hiring

freeze prevented the department from replacing their outgoing department secretary. Rotz willingly and effectively performed many of the tasks that had once been the secretary's. She simultaneously advised the large number of MMBio majors as they advanced through their programs.

Rotz initiated programs and events that unified the faculty and students and enhanced interaction between the two. Events like the Graduation Reception, Spring Barbeque, "Soup's On," and the alumni and bi-monthly department newsletters are all attributed to Rotz's creativity and efforts. In 2006 she received the College of Life Sciences Distinguished Service Award for her excellent work.



Joleen Rowan

Joleen Rowan, department secretary and assistant to the chair in the Health Science department, retired October 1, 2011.

Hired in 1989 in the Physical Education Department, Rowan joined Health Science in 2000.

She successfully supported three consecutive Health Science Department chairs and was an invaluable asset as they learned their new role in the Department. Rowan “[was known] for her excellent and humble approach as Department secretary,” said Dr. Michael Barnes, current Health Science chair.

At the time of her retirement, Rowan was serving a department consisting of more than 550 student majors as well as 15 full-time, and over 20 part-time, faculty. “She was kind, observant, loyal, and incredibly organized—the ‘glue’ that held the department together,” Barnes summarized.

Now retired, Rowan and her husband, Scott, reside full-time in the St. Petersburg, Florida, area. She enjoys spending more time with children and grandchildren, walking along the beach, and getting caught up on long-overdue projects. “Do I miss work?” she asks. “No, not really, but I miss my BYU family!”



Bruce L. Webb

Bruce Webb is quite familiar with BYU. Before his 39-year career as a BYU faculty member, he received both his bachelor’s and master’s degrees in agronomy here.

During Webb’s professional time at BYU, he initiated the Soil and Plant Analysis Laboratory,

where he has mentored countless students in laboratory practices and techniques.

Webb’s research has focused on managing nutrients in soil as well as developing new procedures for soil analysis. He hopes this research will be especially useful for developing countries. His research has been published in journals such as the *Journal of Plant Nutrition* and *Communications in Soil Science and Plant Analysis*. He received the Karl G. Maeser Professional Faculty Excellence Award in August 2012 for outstanding achievement in fulfilling his professional faculty responsibilities.

Webb retired on September 1, 2012. Some of his newly found free time has already been claimed by several fix-up projects at home—including work on an old tractor. He is also excited to spend more time with his grandchildren.



Alton L. Thygerson

Alton Thygerson retired on September 1, 2012, after a 49-year career—45 of them at BYU in the Health Science Department.

Over a span of 25 years, Dr. Thygerson wrote over 1,200 weekly *Deseret News* articles, and authored over 40 books and man-

uals on first aid and emergency care, injury prevention, health, and fitness. Many of them carry the names, logos, and endorsements of the best medical organizations (e.g., American Academy of Orthopaedic Surgeons, American College of Emergency Physicians, etc.).

Thygerson received the BYU Karl G. Maeser Research and Creative Arts Award, the College Distinguished Faculty Lecturer award, and several other recognitions during his career. He is a Fellow of the Academy of Wilderness Medicine and a certified medical writer through the American Medical Writers’ Association.

Retirement will involve family activities, writing, LDS Church service, hiking, traveling, reading, and pursuing birds—Thygerson’s “bucket list” is ever evolving.



William W. Winder

“It has been delightful and fulfilling,” says Dr. Will Winder, “to work with the outstanding faculty and students of BYU. I will miss the close associations with [them].” Dr. Winder retired September 1, 2012, after a 30-year career at BYU as a faculty member in the Physiology

and Developmental Biology Department. He served as department chair from January 2009 until August 2012.

Winder earned his B.S. and Ph.D. in zoology at BYU. He then spent eight years at Washington University Medical School in St. Louis as a postdoctoral fellow and faculty member, plus three years at the University of South Dakota School of Medicine where he taught physiology to medical students and graduate students.

Upon returning to BYU in 1982, Winder focused his research on an enzyme that is activated when a muscle contracts, stimulating glucose uptake and fat burning. He received many awards for his work, including a university Alumni Professorship, the Maeser Research and Creative Arts Award, and the Life Sciences Outstanding Research Award.

Winder and his wife, Linda, are currently serving as missionaries in the California, Santa Rosa Mission.



How your donations helped this Nepalese student conquer educational mountains.

Roshni Khadgi, from far-away Nepal, has high praise for those who support the college through Annual Giving donations.

Because her parents' income couldn't cover BYU tuition, the clinical lab science major applied for and received a scholarship from the College of Life Sciences.

"I am sincerely appreciative," Roshni says, "and want you to know that I will work very hard to make you proud. Thank you for helping me with my wonderful education. I hope that one

day I will be able to help students achieve their goals as I have been able to achieve mine."

After graduating in 2013 Roshni plans to attend physician assistant school, where she will specialize in surgery and go on to provide pre- and postoperative care.

To help another student reach a lofty goal in the College of Life Sciences, complete your gift conveniently online at www.byu.edu/giving/lifesciences.

*To help the college with a special gift,
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