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ADJUNCT TEACHING

## For love of the lecture

Contract teaching positions are becoming the norm for many aspiring professors. Know how to make the best out of them.

#### BY KENDALL POWELL

ast year, after finishing work each day at her administrative job with an art company, Susan Finley drove to Santa Monica College, California, to do what she loves most — teaching. On contract as an adjunct professor, she ran courses in psychology and counselling. She had 120 students last semester, but no office, which made holding office hours a challenge. Instead, she would meet students over dinner in the cafeteria or in a park on campus.

Contingent faculty members, also known as adjunct staff, can be full- or part-time, are off the tenure track and are generally paid on a per-course or hourly basis. As contract positions, the jobs bring greater challenges and less access to university resources than permanent positions. Yet despite the less-than-ideal working conditions, contingent faculty members such as Finley cherish the role for the tangible connection that it provides to a university and an academic department.

Before and after her classes, Finley advises

and tutors students, a commitment for which she receives no compensation. "I'm one of the first professors these students have, and I love it," she says. "But I'm not paid for those hours, even though those are the hours I remember the most. Financially, it's not easy."

She is taking a gamble that the part-time work will help her to land a full-time teaching position — at least eventually. Thanks to other faculty members who have observed and reviewed her work, and students who have evaluated her performance positively, she

▶ has made valuable inroads on that goal. But there are no openings for a full-time faculty member in the department — and that is a burgeoning trend in the United States and other nations.

Although the number of part-time and contract teaching positions is growing quickly at universities across North America and elsewhere, full-time positions — both on and off the tenure track — have become more and more difficult to find. In 1975, tenured and tenure-track faculty members made up 45% of the faculty at US colleges and universities, and part-time instructors just 25%. By 2011, the numbers had reversed, with just 23% on the tenure track or already tenured, and part-time staff soaring to 42%. Today, more than two-thirds of instructional staff are non-tenure track, and most of them are on temporary contracts (see go.nature.com/gws6ow).

#### WHET THE APPETITE

At 32 and with a newly minted doctorate, Finley thinks that teaching on a contract basis is a good way to test the waters of various career paths, but does not see it as a viable long-term prospect. Others in similar roles agree that this is the appropriate attitude to take in the current job market.

Non-tenure-track teaching positions, often called 'instructor' or 'lecturer', can offer freedom and flexibility, but often provide much-lower pay — salaries frequently start on a par with graduate-student stipends. For those who want to keep a hand in science, but not entirely at the bench, these roles offer a chance to hone teaching skills and work directly with undergraduate science students. They can also come with a hefty dose of advising and counselling responsibilities. Some instructors maintain limited research programmes; for others, research is out of reach.

Early-career scientists who are considering

this route should understand that it is not generally realistic or sustainable as a long-term option or for those who want to engage in substantial research. Still, some instructors

"I'm not paid for those hours, even though those are the hours I remember the most."

do manage to turn part-time posts into full-time positions, and a rare few jump to the tenure track at their institutions. Others use these posts as a bridge back to the academic environment following stints in other sectors, or as a way to supplement other work and fulfil their love of the classroom. Scientists who intend to land a full-time post in academic instruction will need to hone their time-management strategies and capitalize on their connections.

A passion for teaching is the most important attribute for success in the face of low pay, instructors say. Also desirable is a fondness



Ethan Tsai delivers an organic-chemistry lecture at the Metropolitan State University of Denver.

for and an understanding of the university student population — knowing how to spark and maintain that group's attention. Beyond that, would-be instructors must be willing and able to invest large chunks of time for which they are not always compensated.

"I put a lot of thought into trying to keep students interested — what is this age group into?" says Pamela Buzas-Stephens, an adjunct geologist who juggles teaching positions at both the University of Colorado Boulder and Front Range Community College in Longmont. But determining how to keep students engaged is just the start, she says. Instructors need hours each week to prepare for a course, even if they have plenty of experience in front of a class. She estimates that an instructor who teaches a course for the first time will spend 3-6 hours preparing for every 1-hour session. In her experience, a 3-hour-per-week introductory course entails a minimum of 25 hours' worth of classroom activities, grading and advising.

There are ways to save time. For large introductory courses, first-time instructors could borrow notes, slides and syllabuses from colleagues who have taught it in the past. And they should prepare lectures far enough in advance to give themselves a buffer zone if they get busy with research or other obligations.

Buzas-Stephens relies heavily on allocating strict time slots for specific activities to limit the hours that she spends on course preparation. A PowerPoint presentation might get two hours, she says. Then it is time to move on.

Another huge time sink for many instructors is responding to student e-mails. Ken Diebel, an instructor in the fisheries and wildlife department at Oregon State University (OSU) in Corvallis, generates a 'frequently asked questions' document for each course to cut down on e-mails. Jennifer Stempien, a geology instructor and student adviser at the University

of Colorado Boulder, has e-mail templates that she uses for common student dilemmas. She also preloads as much material as possible into the university's online course systems, then sets dates to roll out information as the semester progresses.

EISHA J ROWLAND

One of the trickiest aspects of Stempien's job — and a highly time-consuming one — has little to do with geology. Every year, she finds herself advising a handful of her 700 students on their daunting personal challenges, including physical and mentalhealth issues, and even suicide attempts and assaults. "I have all the appropriate campus offices on speed-dial," she says.

Technological advances such as the emergence of online instruction are putting extra strain on many instructors' time. Ecologist Luke Painter runs a mammal-systematics class online at OSU and had to adjust to recording video lectures. "I feel like I'm teaching in the dark, because I know the students are out there, but I can't talk to them directly," he says.

Diebel, who teaches an online course on riparian ecology, received a small grant last year for improvements such as videotaping lecture segments in the field. He attends an annual online-teaching symposium at OSU to learn what innovations other instructors use.

#### **SIDELINE ACTIVITIES**

With such heavy time constraints, it can be difficult to add research to adjunct jobs. But that has not stopped many instructors from trying. Stempien happened on an opportunity when she returned to the department in which she had done her postdoc to finish up a collaboration. While there, she ran into her department chair, who was looking for someone to teach a few introductory class sections. The chair hired her on a per-semester basis initially, and eventually offered her a three-year part-time

instructor contract. The move brought with it better benefits, compensation and access to departmental and university resources. It also gave her a place in the academic geology world that she loves.

She has struggled to carve out time to write up her research on student learning in the geosciences. Her work requires only database access, and she feels fortunate to be in a department that encourages her to continue her research. But it will have to wait until her summer break, when classes end.

Other instructors find ways to carry out at least some research during the academic year. Keen to continue her palaeontological studies on microfossils, Buzas-Stephens acquired a few necessary instruments and began to put in extra hours at her desk, examining specimens of tiny, shelled organisms called foraminifera. And Painter says that at OSU, instructors are allowed to apply for grant funding as investigators. He plans to follow this route to resume his research on the effects of bison and elk grazing on trees. US universities are increasingly offering this option to instructors to bring in more grants.

Others are happy to leave research out of the academic equation. Diebel, who worked for Oregon state agencies as a riparian specialist for 20 years, combines instructing with stream-restoration work as a private consultant. The consultancy allows him to teach part-time while maintaining his income, giving him more freedom and less bureaucracy. "The cool thing is, I don't have the 'publish or perish' or the tenure-promotion stuff to worry about. I focus on what I want to do, which is teaching," he says.

Many instructors select these part-time jobs



Adjunct Pamela Buzas-Stephens runs a field trip.

#### ADVOCACY FOR ADJUNCT ROLES

### Groups give a voice to part-time faculty

Adjunct faculty members have connected across institutions, taking a stand against an education system built on jobs that are often precarious and demoralizing. Maria Maisto, president and executive director of the New Faculty Majority in Akron, Ohio, an advocacy group for US contingent and adjunct staff, says that the group formed in 2009 to provide guidance and support to the growing population of adjunct teachers. It aims to alert those inside and outside academia to the problems associated with such positions, by collecting statistics and advocating for practical solutions.

The Delphi Project, headquartered at the University of Southern California in Los Angeles, and the nationwide US Coalition on the Academic Workforce help adjunct faculty to organize and lobby for

better working conditions. These groups support unionization efforts and work on legislative solutions at the state and federal levels. In 2013, Maisto testified before the US Congress for its 2014 report, *The Just-In-Time Professor*, which discusses the difficulties facing those in contingent roles (see go.nature.com/qtp9bs).

The Adjunct Project, a crowd-sourced database hosted by the *Chronicle of Higher Education* (adjunct.chronicle.com) in Washington DC, provides information on pay rates, benefits and working conditions across the United States. For example, the database shows that salaries for teaching biology in the Denver, Colorado, area range, at present, from US\$950 to \$8,000 per course. This kind of knowledge can help those in contingent roles to advocate for themselves. K.P.

for the flexibility, and may engage in consulting on the side, enjoy semi-retirement or spend time with family members. Some, however, view adjunct teaching as a stepping stone to a more-permanent post — for better or for worse. Teisha Rowland, a postdoc in cardiology at the University of Colorado Denver, is teaching general biology at the Metropolitan State University of Denver (Metro State) parttime to gain crucial teaching experience for her tenure-track job search.

"It's invigorating to be around that student energy the first time they learn about science," she says. But she is well aware that her adjunct position is best treated as temporary and as a way to build a CV. Buzas-Stephens agrees that science instructors who try to cobble together multiple low-paying adjunct contracts into a career are setting themselves up for heartache.

Andrew Robinson at Carlton University in Ottawa knows that heartache firsthand. He excels at the front of a lecture hall, but has struggled to convert his position teaching physics into a full-time, salaried post. "The chances of getting an academic job are already small — if you go into adjunct teaching, your chances probably get smaller."

Robinson and his wife both teach part-time to give them the flexibility to care for their son, who has special needs. But Robinson is bitter that, at age 52 and with 25 years of academic and industry experience, he works long hours teaching courses year-round to scrape together Can\$35,000 (US\$29,000) a year.

"There is no respect for contract instructors at all," says Robinson. "We are viewed as temporary replacements, which can be thrown away." His sentiments echo the frustrations of adjunct faculty members across North America, who have launched a movement to

improve their working conditions and pay (see 'Groups give a voice to part-time faculty').

Still, scientists can take inspiration from the rare few adjunct instructors who do manage to make lemonade from lemons. Through hard work and perhaps a bit of luck, Ethan Tsai, a chemist at Metro State, achieved the near-impossible: he converted an instructor position to a tenure-track faculty spot in the same department.

Tsai began as a contract instructor for an organic-chemistry laboratory course and, over the next few years, was asked to take on more and more duties — including redesigning the lab-course curriculum and co-authoring a grant for the department to acquire a higher-resolution nuclear magnetic resonance (NMR) machine to analyse components of chemical samples. After the instrument arrived, he became its default manager.

Tsai ticked all the boxes for landing a tenure-track post: he made himself indispensable to the department by bringing in both grant money and research opportunities. He also showed his future colleagues that he was an enthusiastic collaborator who fit in the department's culture — a key aspect for tenure-track hires. Those connections made him the strongest candidate for his department's faculty search later on.

He describes his years on contract, when he was putting in 60-hour weeks, as doing heavy labour for graduate-student pay. Yet, he says, it was worth it for the reward of a tenure-track position — and his love of teaching made it possible. "If I didn't enjoy teaching, I would not have lasted beyond a year," he says.

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