

## Jack Jewell, PhD, 1984



Hyatt Gibbs and Jack Jewell, 1983

### What influenced your decision to attend graduate school at OSC?

Through my MS degree, I wavered between physics and astronomy, majoring in physics both times. UA attracted me through its astronomy program, and I entered the physics department. The first semester (Aug. 1977), although I'd already taken a course in Fourier Optics, I took Jack Gaskill's course and experienced OSC. I knew I'd found my home.

### What do you wish you would have known your first day of graduate school? Was there anything you wish you had done to prepare more for graduate school?

I was already well prepared.

### Which classes did you find most enjoyable? Which ones did you find most difficult?

I took a wide variety of classes, including optical shop, medical optics, and microcomputers.

### Was there an individual (professor, advisor, staff, friend, family member) who played a particularly important role in your education?

Positively, Hyatt Gibbs, my advisor. I met with him in the summer of 1980, when I was returning full-time to OSC, and knew that he and his project were just the right fit for me. Working with him in the lab the first year, became familiar not only with the equipment, but also developed an attitude of 'OK experiment, you're going to work, whether you want to or not!' Hyatt's credentials and contacts had this grad student working with world-famous scientists, and got me into Bell Labs, where those collaborations, and my graduate work, continued. That work evolved into VCSELs, which have defined my career. Hyatt was a lifelong friend as well.

### What was your research while attending OSC?

Initially, I worked with Fred Hopf doing optical phase conjugation via 3-wave mixing in a nonlinear crystal (my interest was in correcting atmospheric distortions to sharpen telescope images). After taking time off from OSC, to work with Kitt Peak National Observatory, I worked with Hyatt on semiconductor (GaAs) optical cavities to form all-optical switching and logic devices.

### What was the cost of rent in Tucson while you were in school?

I think about \$150/mo in 1977. By the end of my PhD (1984), I lived comfortably, entirely on the \$9,000/year post-prelim Research Assistantship.

### If you owned a car during graduate school, what year and model was it?

For my entire time at OSC, I drove an old 1968 VW Bug. I had to rebuild the engine twice.

### What was your favorite restaurant/student hangout near campus?

The 'Friday Night Regulars,' posted in the (only) OSC elevator, listed opportunities for wonderful socialization over drinks and dinner. Breakfast at The Blue Note was delightful. Lunch at The Big A was always a treat. Dinner at Scordato's Pizzeria was an occasional extravagance.

### What did you do for fun during your time in graduate school?

Rode my bike, hiked in the mountains, played tennis (including participating in OSC tournaments), and road trips to Mexico.

### What was most memorable about your commencement ceremony?

Being already at Bell Labs. 😊

### At the time of your graduation, what were the most sought-after jobs/most popular industries/most popular companies?

Aerospace-related companies, Bell Labs/IBM type companies, universities, and anything that allowed one to stay in Tucson.

### What was your first job after graduation?

Member of Technical Staff, AT&T Bell Laboratories.

**What was the most significant world event during your time in graduate school. How were you affected by this event?**

The world just seemed to go by...

**Was there a campus or community event in Tucson that was especially important to you?**

OSC's annual Saguaro National Monument bike/run races, followed by the OSC picnic.

**What advice would you give to this year's graduating class?**

Treasure your time spent at OSC. Hold your head high in the outside world, knowing that you've had a world-class education/training. Keep lifelong contact with your OSC friends (students, professors and staff).