CAREER LINKS
Career Development Center

JOHNSON COUNTY COMMUNITY COLLEGE

Conversations about Career Success with Faculty

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What was your college major?

Agricultural sciences, Horticultural sciences, Plant Physiology/Botany, Plant Biotechnology.

My academic background is as follows:

Post-Doctoral appointment at the Biotechnology Center for Agriculture and the Environment, Rutgers University, NJ, USA.

Ph.D. Botany (Emphasis: Plant Physiology). University of Guelph, Ontario, Canada.
Ph.D. Exchange student at Wageningen University & Research Centre, The Netherlands.
M.S., Horticultural Sciences/Plant Agriculture. University of Guelph, Ontario, Canada.
M.S., Horticultural Sciences/Specialization: Floriculture and Ornamental Horticulture, Kerala Agricultural University, India.
B.S., Agricultural Sciences. Kerala Agricultural University, India.

All plants on this planet are inter-related. For plant growth and development, globally, the only difference from region-to-region is soil and climate. With my 16+ years of study and research at different world-class universities in plant science, agricultural sciences, and horticultural sciences, in addition to a wealth of knowledge, I also bring a global and regional perspective to the horticultural sciences I teach at JCCC.

Did this major lead you to your current career?

Yes, it did. Horticultural Sciences is an innovative, dynamic, diverse field of study. There are several specializations within this science. E.g., Ornamental horticulture, Landscape Horticulture, Olericulture, Pomology, Floriculture, Viticulture, Horticultural Therapy, and Public Horticulture. 21st century horticulturists, regardless of their specialization, does extensive research in plant propagation, plant physiology, plant biochemistry, plant genetics, and plant breeding for improved cultivated varieties, innovative production practices, and cultivation of high value crops in green houses and field sites.

Horticulture industry in a certain region or State depends mainly on the climate and soil. For example, viticulture contributes $57 billion annually to California's economy and $114 billion annually to the US economy (Source: www.capitalpress.com). In Kansas, Ornamental Horticulture is a billion-dollar industry.

What are the characteristics that your most successful students possess?

Students considering Horticultural Sciences as their major should have immense passion for plants, nature, and the environment. Critical thinking skills, excellent communication skills, networking skills, inter-personal skills, and problem-solving skills are a must for anybody considering Horticultural Sciences as a profession. Most employers are looking for students who can lead a team. Therefore, in addition to scientific and technical knowledge of the discipline, leadership skills are also highly desired. Students wanting to start their own business should understand the science and business aspects of this industry. And also, be creative, meticulous, and detail oriented.

Name three things a student should know when exploring this career.

There are endless career and job opportunities in the horticulture industry. Career in horticulture can be either as an employee or an entrepreneur. To be a successful horticulturist, scientific knowledge of plant growth and development is a MUST. Most horticulturists work unsupervised long hours in fields, green houses or labs depending on their specialization. Therefore, physical stamina, self-motivation, and good work-ethic is required. Workload gets busier during planting and harvesting seasons due to the seasonal nature of the industry. Position in sales for large companies, although lucrative, will require excellent communication skills, extensive travel, and ability to work in fast-paced business environments. Hort 270 internship, our capstone course, provides hands-on industry experience to students before they graduate.

What skills will a student learn when pursuing this career?

As graduates from the Horticultural Sciences department, students will have the following skills:

Scientific knowledge of plant growth and development.
Scientific knowledge necessary to successfully propagate, grow, and manage any type of plant found on this universe- native, and non-native.
Scientific knowledge and nomenclature of plants used in this region.
Hands-on technical skills in several aspects of horticulture, to work and lead the industry.
Critical thinking and problem-solving skills.
Marketing and customer service skills.
Ability to set up experiments, collect, interpret, and analyze data.
Basic Plant Tissue Culture skills.
Scientific knowledge required to get certified as a Commercial Pesticide Applicator.
Scientific knowledge required to get certified as an ISA certified Arborist.

Proficiency in written communication needed for success in horticultural careers and transition to undergraduate programs.
Scientific knowledge to diagnose plant problems, horticultural problems, and recommend eco-centric solutions.
Leadership skills, if involved with the Horticultural Sciences Students' Association.

For a student needing part-time employment while in college, what types of jobs provide the best experiential learning opportunities?

Nursery Propagation and Production of ornamentals, essential plants, and food crops -in greenhouses and or in fields. E.g., Asst. greenhouse manager, nursery crew supervisor, worker.
Turfgrass industry – Sod production, retail sales.
Golf course maintenance – Asst superintendent, spray technician, landscape manager, crew leader, groundskeeper, equipment operator.
Cannabis industry – Grower, lab tech.
Landscape Design
Landscape Construction
Landscape Maintenance. E.g., Crew leader, Manager, Supervisor, Asst. Superintendent of operations, sales.
Propagator, grower, sales
Garden Center buyer, garden center sales, plant problem diagnostic technician
Jobs in Arboretums, Parks and Recreation, for the city.
Horticulture technician.
Plant tissue culture technician.
Ornamental horticulturist.
Marketing for horticulture businesses (computer skills needed) – catalog preparation, website development and management, prepare fliers.
Commercial Pesticide applicator.
ISA Certified Arborist.

If a college student is unable to find related work experience in this career field, how do you suggest he/she prepare for the workplace?

Where there is a will, there is a way!! If students are passionate about Horticulture, they should be able to find seasonal jobs in the industry easily. In the greater Kansas City area there are way more horticultural seasonal jobs and career opportunities than there are Hort graduates. While enrolled in the program, students should try to gain work experience with a

summer job or two in one or two specializations within this discipline. Students should also make use of the networking opportunities (field trips and guest speakers) provided by professors. Hort 270 internship course is designed to help students find their niche in the industry. Students are encouraged to find an employer of their choice in the desired specialization. During the internship, students should plan to impress their employer with the scientific knowledge, critical thinking and practical skills acquired by taking Horticulture classes at JCCC. Most employers hire and retain students after a successful internship. Getting additional certifications in commercial pesticide application or Arboriculture will increase marketability of graduates.

Is there a selection process for entering this program?

There is no selective admission. All High school or GED graduates can apply. Students can declare Horticultural Sciences as a major and pursue either a 31-credit hr. Horticultural Sciences Certificate or a 61-credit hr AAS degree in Horticultural Sciences. The Certificate is stackable with the AAS Hort degree. We have articulated several transfer agreements with Kansas State University. Also, several of our Hort courses transfer to other Colleges and Universities in the US.

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