



Green and Sustainability Jobs: Career Resources

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Interest in creating a greener and more sustainable future has never been higher. To complement this growing interest, quality career resources are needed. This article provides perspectives and resources to enhance career advising efforts for green and sustainability jobs.

Our urgent societal employment and environmental challenges are fueling this growing interest. In response to present demand and in anticipation of a rapid increase in clean energy and other green economic activity, educators have brought green and sustainability principles into the curricula, operations and activities on higher education campuses around the world. Green and sustainability focused curricula are integrated within existing programs in all academic disciplines, and manifest as new majors, minors, degrees, certificates, and continuing education programs in higher education. Networks of higher education institutions educating for sustainability cover six continents.

Who needs this green and sustainability career advising information? On campuses, educators in academic departments and staff in career placement offices will benefit students by using the information in this article. Recruitment centers and economic development staff from nonprofits and governments can also use these green career advisory resources. Students and youth not in school can also benefit directly by reading this article. Career, academic and sustainability professionals on campus can take the lead to share these green and sustainability career resources with the following target areas on campus:

- Career center staff,
- Academic advisors in all areas,
- Alumni offices,
- Faculty in all departments,
- Student environmental and sustainability groups,

- Student life and residential life staff.

Student life and residential life activities are often related to sustainability (see examples [here](#)), yet the career resources are often not connected, so sharing this information with student life and residential life staff could be very helpful. There are career pathways in sustainability in every academic area. It is important that faculty and academic advisors are aware of these sustainability pathways and resources. Oftentimes they are the ones who have to first respond to a student's interest in sustainability. Academic associations have recognized this (see Participating Associations at [this site](#)) and are increasingly posting education for sustainable development resources on their websites, but the career resources are often overlooked, so sharing them internally on campus with faculty and career advising staff can be very useful.

Sustainability jobs and careers are about implementing the “triple bottom line of sustainability” and helping to solve the [Sustainable Development Goals](#). The triple bottom line is often described as “people, planet and prosperity” or “equity, environment, and economy”. Regardless of the specific choice of words, sustainability is about making smarter decisions so our societies can have healthy ecosystems, improved quality of life, and vibrant and inclusive economies. Job growth and qualifications data shows increasing numbers of employers and students value the importance of sustainable development competencies and skills.

Sustainability jobs span all types of companies, nonprofits and government entities, and encompass a very large realm of career pathways. Green jobs are a subset of sustainability jobs, and can take many forms. ILO defines green jobs as decent jobs that contribute to, preserve, or restore the environment, be they in traditional sectors such as manufacturing and construction, or in newer and quickly growing green sectors such as renewable energy and energy efficiency. These jobs include the technicians educated through technical institutions and the business managers, financiers, marketers, engineers and others typically educated through the universities. Green jobs help:

- Improve energy and raw materials efficiency
- Limit greenhouse gas emissions
- Minimize waste and pollution
- Protect and restore ecosystems and human health
- Support adaptation to the effects of climate change¹

Basic Approaches to Securing a Green Job

There are three approaches:

1. Apply for existing job openings related to the green economy and sustainability

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https://www.ilo.org/global/topics/green-jobs/news/WCMS_220248/lang--en/index.htm#:~:text=Green%20jobs%20are%20decent%20jobs.energy%20and%20raw%20materials%20efficiency (ILO, 2016)

2. Bring a green lens to any job - intrapreneurship
3. Create the green jobs we need that do not exist yet, through innovation and entrepreneurship

Students need to understand that stopping at the first approach limits their choices and will not get our shared world to a sustainable future.

Existing Green and Sustainability Jobs

Green and sustainability jobs go beyond the solar designer or the wind generator, technician or engineer that many people characterize as a green job. Sustainability jobs also include social equity and economic components. See the Annex for a partial list of the hundreds of careers/jobs where green and sustainability competencies are increasingly valued.

The listing provides just a partial introduction to the many green and sustainability related jobs presently in the marketplace. Companies and organizations involved in the offering of green products and services need skilled salespeople, marketers, technicians, installers, designers and manufacturers, distributors, retailers, managers, financiers, and business owners. Governments and nonprofits facilitating the growth of a green and sustainable economy need planners, policy and regulation experts, program managers, and educators. Integrating green principles into energy production, farming and food, transportation, infrastructure and construction requires both the upskilling of the existing workforce and preparation of additional green workers.

Bring a Green Lens to Any Job

Many students interested in contributing to a sustainable future attempt to search for jobs that include terms such as “green” and “sustainability”, and become frustrated because using these search terms limits their choices. Future employees can bring sustainability and green economy perspectives into any job and organization as an intrapreneur, even when the main focus of the job is not strictly or wholly about sustainability. Both employers and job seekers will benefit from understanding this.

Green jobs produce goods or provide services that benefit the environment or use fewer natural resources. This means any job that includes choices about how and which resources to consume are potentially green jobs, from simple items like ordering office supplies to choosing energy sources and complex product development. Students can bring their environmental knowledge to any job to help create a greener economy. To be successful at greening an organization (e.g. company, nonprofit or government), students need to understand how to assess the organization’s products/services and processes, find the opportunities to shift the organization to greener practices, and build the coalition of support necessary to create the changes. More specifically, to be effective at helping organizations become “green”, employees need to understand: the formal and informal influence structure within an organization; the systemic

change leverage points to green the products, services and processes; the skills to influence the culture and decision-making to be green, including the abilities to build the support of key stakeholders and effectively implement the changes.

Helping students learn to be systems thinkers and effective change managers is an essential component of quality education for a sustainable economy. These are competencies and skills that students should gain regardless of the academic path they choose, and are transferable from one job to the next, offering more opportunities for future employees to implement change across industries². These are also skills in high demand in both multinational corporate and smaller-sized businesses around the world, as reported by Fortune 500 CEOs.

Creating the Green Jobs We Need that Do Not Yet Exist

Many of the jobs we need for an inclusive and green economy do not yet exist. People with an entrepreneurial mindset and good interpersonal skills can help create the organizations and the jobs that are needed. Some of the more exciting and impactful sustainability jobs (e.g. community grid designers, home packages for clean cooking, lighting and communications; ride sharing platform designers, local currency and time banks, mutual aid societies, deconstruction and circular economy related business owners, sustainability related blended financing advisors) are being created by entrepreneurs responding to their community's needs. Similarly, within the green economy many of the now-established jobs were started by entrepreneurs. Examples from the past include: Energy Manager, Renewable Energies Instructor, Sustainability Coordinator, Green Landscapers, Green Bond Financiers, Green Builders and Retrofitters, and Urban Farmers.

Youth working in the informal economy and students can be more successful if they learn entrepreneurship skills and systems thinking, and are encouraged to adopt an entrepreneurial mindset. A transition to a green economy can be catalyzed by incentivizing and supporting students towards entrepreneurial thinking. Systems thinking leads to the scaling up of this kind of entrepreneurial disruptions and innovations, helping humans create the sustainable transformation of the very systems that govern our relationship to each other and to natural resources. To increase such actions we must focus on creating environments that will support both entrepreneurship and the rapid scaling up of innovations that can contribute to a global green transformation.

Educational Changes and Career Advising

² Brundiari, K., Barth, M., Cebrián, G. *et al.* Key competencies in sustainability in higher education—toward an agreed-upon reference framework. *Sustain Sci* (2020). <https://doi.org/10.1007/s11625-020-00838-2>

Students need information about both career pathways and job openings. In the US, three networks, the [Higher Education Associations Sustainability Consortium](#) (HEASC), the [Disciplinary Associations Network for Sustainability](#), and the [US Partnership for Education for Sustainable Development](#) have worked to compile sustainability career resources. (These networks are made up of over 65 national higher education associations and all have been requesting quality information on green and sustainability career pathways and job openings.) The networks compiled [a list of over five dozen sources of job posting sites and career resources sites](#). These resources are updated regularly. The list includes both job boards and career pathway resources that can help students explore which green and sustainability careers they are interested in, what competencies are desired for different career pathways, and which job openings are presently available. At the top is a link for a poster to be displayed and shared electronically within department offices and in the career centers. While much of this information is useful internationally, some is US specific and similar listings exist or could be developed in other countries. The [Sustainable Energy Jobs platform](#), launched by multiple international organizations, is another international career resource.

Career advisors, campus staff and educators are uniquely suited to help students in any academic area envision and find pathways to a more sustainable future for all. Sharing these resources and perspectives are a necessary next step.

ANNEX - Partial list of green jobs:

- Agriculture at farm and food products levels
- Architects
- Biomass Plant Designer, Manager, Technician...
- Brownfields Real Estate Developer
- Builders and Developers
- Building Codes Inspector
- City/Community Manager
- Clean Energy/Sustainability Planners, Policy Analysts and Advocacy Specialists
- Climate Change Risk Assessor and Mitigation Expert
- Communications and Social Media Specialist
- Community Organizer
- Corporate Social Responsibility Staff
- Corporate Sustainability Staff
- Culinary staff
- Diversity and Inclusion Staff

- Eco-tourism
- Educators
- Energy Efficiency, Renewable Energies and Green Products Financiers, Manufacturers, Distributors, Contractors, Retailers, Salespeople and Installers
- Energy Manager
- Energy Statistician
- Energy Storage Specialists (e.g. smart grid, hydrogen, batteries, compressed air)
- Environmental Economist
- Environmental Engineering Technician
- Environmental Journalist
- Facilities Director/Maintenance Staff
- Federal, State and Local Energy and Other Sustainability Related Staff (e.g. economic development, workforce development)
- Financiers
- Green Building Product Designers, Distributor, Installer ...
- Green specialist in societal sectors (e.g. sports, health, end of life care, insurance)
- Greenhouse Gas Analyst/Broker
- Heating and Air Conditioning/ Building Automation Technician Controls Specialist
- Hospitality
- Materials Scientist
- Non-Profit Sustainability Related Educator/Program Manager
- Operations Manager
- Permaculture Designer/Contractor or Sustainable Landscape Architect
- Procurement and Purchasing
- Property Assessor
- Refuse & Recycling Staff
- Risk Assessor
- Socially Responsible (Social Impact) Investors and Advisors
- Transportation Planner
- Utility Plant Operatives
- Water Reservoir and Watershed Engineer/Technician