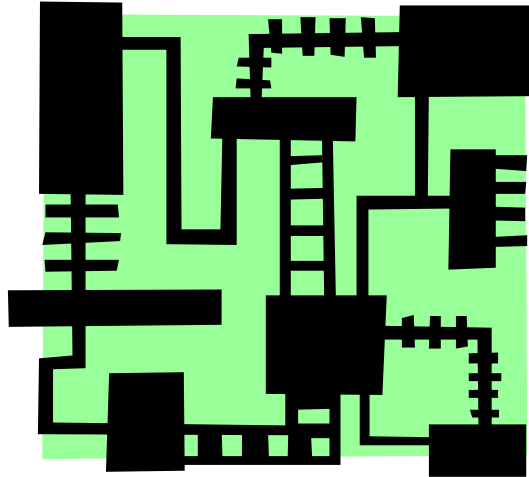


Working in High Tech



Entry Level High Tech Skills Training Participant Materials

**CAPITAL Career Center
Portland Community College**

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Entry Level High Tech Skills Training Program Overview

What we will cover in the next 7 weeks:.

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| <u>Working in High Tech</u> <ul style="list-style-type: none">• Program Review• Industry Overview• Entry-level jobs• Employer Expectations | <u>Computer Skills</u> <ul style="list-style-type: none">• Keyboarding• Windows• Email |
| <u>Communication</u> <ul style="list-style-type: none">• Verbal & Nonverbal Communication, Conflict Resolution• Diversity/Culture Awareness• Active Listening• Harassment | <u>Safety</u> <ul style="list-style-type: none">• Hazard Communication• Ergonomics• Lock Out/Tag Out (LOTO)• Personal Protective Equipment• Violence in the Workplace |
| <u>Technology</u> <ul style="list-style-type: none">• Diagram Reading• Blueprint Reading• Math and Measurements• Reading/Writing for the Job• Common Technology• Component ID• Soldering | <u>Quality</u> <ul style="list-style-type: none">• Lean Manufacturing• ISO 9000 and ISO 13485 Certification• Quality Systems (Teamwork & Problem Solving)• ESD (Electrostatic Discharge)• ITAR |

Treat this class as a job. Students will be evaluated on attendance, punctuality, attitude, participation, commitment and performance, and any or all of this information may be relayed to potential employers. Students are required to call in if they are going to be late or absent. More than 2 absences results in dismissal from the program.

Overview of the High Tech Industry

- What comes to mind when you think of high tech?
- How many high tech companies do you think there are in the Portland Metropolitan Area?
- How many local high tech companies can you name?
- High tech companies can be found in Clackamas, Columbia, Multnomah, Washington, Yamhill and Clark counties, with the majority of high tech firms located in Washington and Multnomah counties.

History of High Tech

- The roots of the high tech industry in the Portland Metropolitan area were developed decades ago with the success of Tektronix. Tektronix was founded in 1946 and manufactured oscilloscopes, a device used for designing, manufacturing, and servicing many different kinds of electronic devices including computers. Later the company expanded into graphic interface and other technologies in the 1970s.
- In the 1960s and 1970s, Tektronix was Oregon's largest manufacturing firm and biggest employer of high tech workers, employing approximately 20,000.
- Tektronix encouraged other high tech firms to expand their operations or to move into the area, including Intel and a number of Japanese companies who built manufacturing plants here. As these and other companies moved into the area, the Silicon Forest grew rapidly through the 1980s and into the 1990s and into the next century.
- Between 1993 and 1998, high tech companies accounted for more than 22,000 new jobs, making Oregon the second fastest growing state economy in the country.

Current Situation

- In 2001 and again in 2008, the downturns in the economy hit the high tech industry hard. High tech companies were forced to downsize and apply lean manufacturing principles to stay in business.
- High tech firms can no longer afford to hire people who have weak basic skills or who lack technical skills; they need workers who are skilled, flexible, efficient, and able to adapt and grow with the industry.

- To address these needs, high tech firms are forming partnerships with educational institutions like PCC to create job training programs that will create a pool of qualified workers. This is a win-win situation for both the companies and employees.
- Companies must adjust to the changing economic climate and be able to respond to the upswings and downswings in production that are typical in this industry. Employees must be flexible in their ability to work varied schedules, shifts, overtime, etc. During high production times, employees must be able to work overtime. During downtimes, employees may be asked to reduce their hours until business picks up again.
- Since the economic situation is often unstable, employees also need to understand that it may be difficult for employers to grant extended vacations (longer than 2 weeks). High tech companies are running as lean as possible and often cannot spare people for longer periods than the standard vacation time.

Job Descriptions

Possible entry-level positions in local companies include:

- **Manufacturing Associate**
- **Materials Associate**
- **SMT Operator**
- **Production Worker**
- **Assembly Worker**
- **Machine Operator**
- **Inspector**
- **Cleanroom Process Operator**
- **Shipping & Receiving Worker**
- **Warehouse**
- **Inventory**

In pairs, review the job description and answer the following questions:

1. What is the company and job title?
2. What are the 5 main job duties or responsibilities?
3. What are some of the required skills for this job?
4. Are there physical requirements for this job? If so, what are they?
5. Who does this job report to?
6. What do you like about this job?
7. What do you dislike about this job?
8. Do you have to take a drug test before you can be hired? Yes No

What Makes a Good Employee?

Here are a few qualities that employers look for in new employees, and for when they are considering employee promotions. Think of examples for each one.

- 1. Being on time**
- 2. Doing what you say you will do**
- 3. Getting along with others**
- 4. Working as a team member**
- 5. Understanding written information**
- 6. Basic writing skills**
- 7. Basic speaking skills**
- 8. Basic math and measurement skills**
- 9. Being neat and clean in appearance**
- 10. Knowing what you do well and what you need to improve**
- 11. Working hard at your job**
- 12. Taking initiative to learn new skills**
- 13. Knowing what is expected of you on the job**
- 14. Knowing how to use materials and equipment**
- 15. Gaining additional training whenever possible**
- 16. Following company policies and rules including all safety rules**
- 17. Following instructions**
- 18. Working independently**
- 19. Working under pressure**
- 20. Flexibility on the job**

Workplace Situations: What would you do?

Group discussion

1. You are part of a work team that usually works very well together. Lately there have been a lot of mistakes in your department. This has made a lot of rework and scrapped boards. The supervisor and team members are angry about this. The supervisor told the whole team that the department can't have these kinds of things happening. You think the problem may be Tony. He has made many mistakes recently and sometimes you have smelled alcohol on his breath. What can you do about this?

2. You have been on the job for a year. It is time to take your vacation. You have saved enough money to visit your home country. The only problem is that you have only two weeks of vacation and need three or four weeks. You have an appointment with your supervisor to ask for more time off, but are worried about how he or she will answer you. The company has a lot of work and employees are working overtime. What will you say to your supervisor?

3. You are being asked to work a lot of overtime because there are more needs in production. You really want to go to your cousin's birthday party this weekend. If you have to work overtime, you won't be able to go. You are thinking about calling in sick on Friday so you won't be asked to work overtime. That way you will be sure to make it to the party. What should you do?

Company Policies and Rules

Company policies and rules are usually explained in employee handbooks. Some of the topics handbooks cover may include:

- **Introduction to the company** – company history, vision and mission
- **Employment practices** – hiring procedures, employee expectations, benefits, termination
- **Company policies governing employee behavior:** Equal Employment Opportunity policy, harassment policy, performance evaluations, grievance procedure, job changes
- **Payroll** – work hours, break times, time tracking system, pay periods and paychecks
- **Benefits** – insurance coverage, retirement, paid time off, tuition reimbursement, training, holidays, vacations, personal days, sick time, etc.
- **Employee Leave** – disability leave, parental leave, family medical leave, military leave, jury duty, etc.
- **Employee Communications** – employee responsibilities, manager responsibilities, new employee orientation, meetings, social activities, employee recognition, newsletter, etc.
- **Safety and Health** – safety program, smoking policy, drug and alcohol policies, building security, accidents, Workers Compensation, etc.
- **Company Equipment and Property** – office equipment, bulletin boards, phones, computer equipment, software, email, internet access, housekeeping, building facilities, security, parking, etc.