

**As Many Industries Play a Role in Our Environment ... ENVIRONMENTAL ENGINEERS PLAY A ROLE IN MANY INDUSTRIES.**

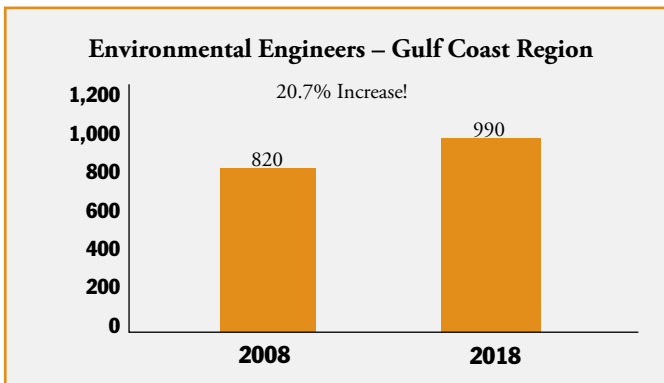
Environmental engineers work to develop solutions for environmental problems using biology and chemistry. Increasing public health awareness is shifting efforts more and more toward problem prevention and is expected to increase demand for environmental engineers. Opportunities exist in many environmental fields related to research, design, planning, consulting, testing, and government regulations. High concentrations of chemical and petrochemical manufacturing companies, large water supplies and resources, wastewater facilities, solid waste management facilities, and ever-increasing land, air and sea transportation activity will continue to lead to strong demand for environmental engineers in the Gulf Coast region.



Some of the many specialties available are related to:

- Air pollution control
- Industrial hygiene
- Radiation protection
- Hazardous waste management
- Toxic materials control
- Water supply
- Wastewater management
- Storm water management
- Site remediation
- Solid waste disposal
- Public health land management

**THE NUMBER OF ENVIRONMENTAL ENGINEERS IN THE GULF COAST REGION IS EXPECTED TO GROW BY 20.7 PERCENT OVER 10 YEARS!**

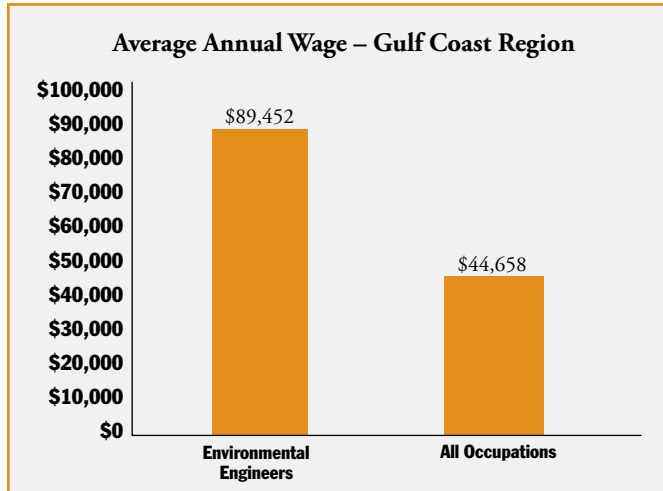


Brought to you by the Education Committee of The Gulf Coast Workforce Board. For more information visit us on the web at [www.wrksolutions.com](http://www.wrksolutions.com). Latest data available. May 2011.

\*Includes the following counties: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

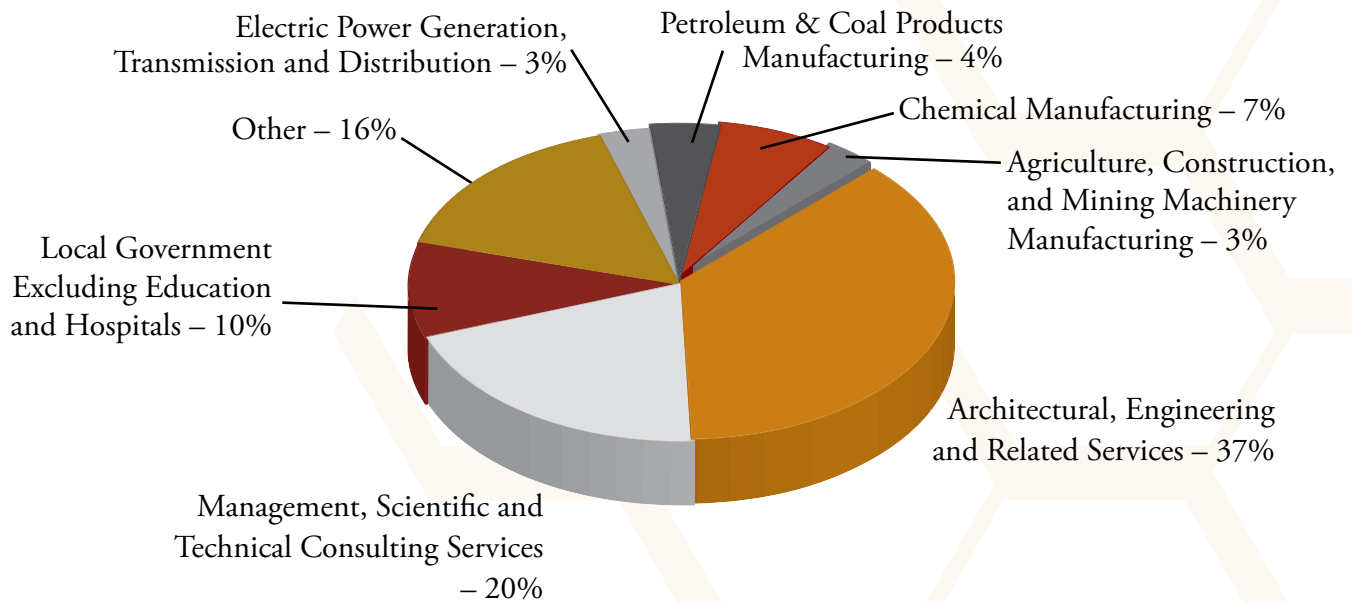
# FOCUS ON ENVIRONMENTAL ENGINEERING

**ENVIRONMENTAL ENGINEERS EARN A COMFORTABLE SALARY, TWICE THE REGION'S AVERAGE ANNUAL WAGE FOR ALL OCCUPATIONS**



**ENVIRONMENTAL ENGINEERING OPPORTUNITIES ARE AVAILABLE IN MANY INDUSTRIES.**

**Environmental Engineers – Gulf Coast Region 2018**



# FOCUS ON ENVIRONMENTAL ENGINEERING

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## **PATHWAY TO BECOMING AN ENVIRONMENTAL ENGINEER**

There are two common pathways for entering the field of environmental engineering:

- A Bachelor of Science Degree in Environmental Engineering or related field (civil, chemical, or mechanical engineering depending on the nature of the position sought)
- A Master's Degree in Environmental Engineering



More and more employers are seeking candidates with a master's degree. Specific education backgrounds desired by employers are determined by the field of work for the job opening. Some positions require a professional engineering license.

## **LICENSING AND CERTIFICATIONS**

The American Academy of Environmental Engineers (AAEE) was created to serve the public by improving the practice, elevating the standards, and advancing public recognition of environmental engineering through a program of specialty certification of qualified engineers. <http://www.aee.net/>

The National Society of Professional Engineers provides information for professional engineer licensure. [www.nspe.org](http://www.nspe.org)

The Texas Board of Professional Engineers regulates and licenses professional engineering in Texas. [www.tbpe.state.tx.us](http://www.tbpe.state.tx.us)

## **PLAN EARLY TO BECOME AN ENVIRONMENTAL ENGINEER.**

Students should strive for the highest GPA possible to provide them with the edge needed for acceptance into an engineering program. High school preparation should encompass chemistry, physics, mathematics, and science.

# FOCUS ON ENVIRONMENTAL ENGINEERING

## PREPARING FOR A ENVIRONMENTAL ENGINEERING CAREER\*

9th Grade		Suggested Coursework	
	English I	World Geography	<b>Career-Related Electives:</b> Technology Systems (Modular Lab Based) Bio-related Technology
	Algebra I	Languages other than English I	
	Biology	Health/PE or Equivalent	
10th Grade		Suggested Coursework	
	English II	World History	<b>Career-Related Electives:</b> Engineering Principles or Astronomy or Engineering Graphics or Electricity/ Electronics Technology
	Geometry	Languages other than English II	
	Chemistry	Technology Applications	
11th Grade		Suggested Coursework	
	English III	United States History	<b>Career-Related Electives:</b> Bio-related Technology Systems or Energy, Power, and Transportation Systems or Geology, Meteorology, and Oceanography or Health Science Technology
	Algebra II	Communication Applications	
	Physics	PE or Equivalent	
12th Grade		Suggested Coursework	
	English IV	Government/Economics	<b>Career-Related Electives:</b> Research Design and Development or Communication Graphics or Computer Multimedia and Animation
	Calculus	Fine Arts	
	AP Physics		

\*Source: AchieveTexas.org

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## GULF COAST REGION ENVIRONMENTAL ENGINEERING PROGRAMS

### UNIVERSITIES

- Prairie View A&M University
- Rice University
- Sam Houston State University
- Texas Southern University
- University of Houston
- University of Texas Health Science Center of Houston



### MAJOR EMPLOYERS IN THE GULF COAST REGION

- Akzo Nobel Polymer Chemicals
- BASF Corporation
- Bayer Corporation
- BP Amoco Chemical Co.
- Conoco Phillips
- The Dow Chemical Company
- E.I. Du Pont de Nemours & Co.
- Equistar Chemicals, LP
- ExxonMobil Chemical
- INEOS Olefins and Polymers, USA
- Shell Deer Park Chemical
- Texas Petrochemicals LP
- Union Pacific
- Valero Refining
- Waste Management Inc.

### OTHER EMPLOYER SOURCES

- Colleges and Universities
- Consulting Firms
- Environmental consulting firms
- Government agencies
- Testing laboratories
- Utility companies
- Waste management companies

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