



Technical Education  
and Skills Development Authority

# Webliography

The Webliography is an electronic bibliographic listing of topics related to the qualification titles of a particular TVET priority sector, with pre-searched *URLs* (uniform resource locators) and descriptions (abstracts).

The pre-searched *URLs* provide contents in reference to the title of promulgated Training Regulations (TR). By clicking the weblinks (underlined *URLs* in blue text), your internet browser will direct you to the website/webpage where you can find the topic related to the title you selected. The Webliography is a useful tool for trainers who are designing and developing competency-based curriculum and learning materials.

[TESDA](#) » [Webliography](#) » [Chemicals/Plastic/Petrochemicals Sector](#)

## INTERNET RESOURCES

### Chemicals/Plastic/ Petrochemicals sector

#### Scope:

A chemical process is a method intended to be used in manufacturing or on an industrial scale (see Industrial process) to change the composition of chemical(s) or material(s), usually using technology similar or related to that used in chemical plants or the chemical industry.

#### Source:

[https://en.wikipedia.org/wiki/Chemical\\_process](https://en.wikipedia.org/wiki/Chemical_process)

#### List of qualification:

- **Chemical Process Operations NC III**

This qualification consists of competencies that a person must achieve to perform chemical operations and control chemical processes.

#### ❖ Chemical Process

[https://en.wikipedia.org/wiki/Chemical\\_process](https://en.wikipedia.org/wiki/Chemical_process)

This webpage describes the chemical process as a method or means of somehow changing one or more chemicals or chemical compounds. Such a chemical process can occur by itself or be caused by an outside force and involves a chemical reaction of some sort.

[Retrieved January 24, 2018]

#### ❖ Chemical Processing: Implementing an operations management system

<https://www.chemicalprocessing.com/articles/2006/150/>

This webpage provides information and analytical data including strategies in the operation and control of the manufacturing business.

[Retrieved January 24, 2018]

#### ❖ Process Operator Job Description

<http://www.jobhero.com/process-operator-job-description/>

This webpage describes the job of operators in manufacturing plant or an industrial facility. Process operators are skilled professionals who often work as part of a team and provide leadership.

[Retrieved January 24, 2018]

#### ❖ Chemical Plant Operator: Job Description, Duties and Requirements

[https://study.com/articles/Chemical\\_Plant\\_Operator\\_Job\\_Description\\_Duties\\_and\\_Requirements.html](https://study.com/articles/Chemical_Plant_Operator_Job_Description_Duties_and_Requirements.html)

This webpage describes the scope of work of chemical plant operator including links to schools offering programs in chemical plant operation.

[Retrieved January 24, 2018]

#### ❖ Unit Operator

[https://en.wikipedia.org/wiki/Unit\\_operation](https://en.wikipedia.org/wiki/Unit_operation)

This webpage explains unit operation which is the basic step in a process performed in chemical engineering and related fields. A process may require many unit operations to obtain the desired product from the starting materials, or feedstocks.

[Retrieved January 26, 2018]

## INTERNET RESOURCES

### Core Competencies

- Determine process requirements

#### ❖ Applied process design for chemical and petrochemical plants

[https://books.google.com.ph/books?id=T69gFnVmK4MC&pg=PA122&lpg=PA122&dq=determine+petrochemical+process+requirements&source=bl&ots=DkCOPOK-](https://books.google.com.ph/books?id=T69gFnVmK4MC&pg=PA122&lpg=PA122&dq=determine+petrochemical+process+requirements&source=bl&ots=DkCOPOK-v4&sig=r1W6J_PpGa6F38aHdPuqaQfYyBE&hl=fil&sa=X&ved=0ahUKEwjEq6zn_p_ZAhUMF5QKHWTcpcQ6AEIVDAH#v=onepage&q=determine%20petrochemical%20process%20requirements&f=false)

[v4&sig=r1W6J\\_PpGa6F38aHdPuqaQfYyBE&hl=fil&sa=X&ved=0ahUKEwjEq6zn\\_p\\_ZAhUMF5QKHWTcpcQ6AEIVDAH#v=onepage&q=determine%20petrochemical%20process%20requirements&f=false](https://books.google.com.ph/books?id=T69gFnVmK4MC&pg=PA122&lpg=PA122&dq=determine+petrochemical+process+requirements&source=bl&ots=DkCOPOK-v4&sig=r1W6J_PpGa6F38aHdPuqaQfYyBE&hl=fil&sa=X&ved=0ahUKEwjEq6zn_p_ZAhUMF5QKHWTcpcQ6AEIVDAH#v=onepage&q=determine%20petrochemical%20process%20requirements&f=false)

This webpage provides information on the requirements of functional chemical and petrochemical plants.

[Retrieved February 12, 2018]

#### ❖ Oil and chemical plant layout and spacing

[http://xlcatlin.com/~media/gaps/252\\_0.pdf](http://xlcatlin.com/~media/gaps/252_0.pdf)

This downloadable PDF provides information on plant layout determination and spacing requirements of chemical and petrochemical plants.

[Retrieved February 12, 2018]

#### ❖ Lab Equipment vs. Industrial Equipment in Engineering and Chemistry Lab (E06)

[https://ph.video.search.yahoo.com/yhs/search;\\_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted\\_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted\\_003&type=wbf\\_kpvid\\_18\\_11#id=41&vid=74a432533b10b5b4ff150347b185ef5f&action=view](https://ph.video.search.yahoo.com/yhs/search;_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted_003&type=wbf_kpvid_18_11#id=41&vid=74a432533b10b5b4ff150347b185ef5f&action=view)

This video explains the equipment requirements in laboratory and industrial engineering laboratory.

[Retrieved June 28, 2018]

#### ❖ Valves for chemical/ petrochemical processes

[http://www.anb.com.pl/storage/Brochure\\_Valves\\_for\\_Chemical\\_and\\_Petrochemical\\_Processes.pdf](http://www.anb.com.pl/storage/Brochure_Valves_for_Chemical_and_Petrochemical_Processes.pdf)

This downloadable PDF provides information on control valves that are vital in the operation of chemical and petrochemical plants.

[Retrieved February 12, 2018]

#### ❖ Chemical Process Technician

[https://ph.video.search.yahoo.com/yhs/search;\\_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted\\_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted\\_003&type=wbf\\_kpvid\\_18\\_11#id=8&vid=edd6ed8487a92d73f0f60ea787b036d&action=view](https://ph.video.search.yahoo.com/yhs/search;_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted_003&type=wbf_kpvid_18_11#id=8&vid=edd6ed8487a92d73f0f60ea787b036d&action=view)

This video describes the roles and activities of the chemical process technician at the refinery.

[Retrieved June 28, 2018]

#### ❖ Process Equipment of Chemical Industries

[https://ph.video.search.yahoo.com/yhs/search;\\_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted\\_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted\\_003&type=wbf\\_kpvid\\_18\\_11#id=47&vid=bea174b277b31b471d5b70d44f925d95&action=view](https://ph.video.search.yahoo.com/yhs/search;_ylt=AwrEAKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted_003&type=wbf_kpvid_18_11#id=47&vid=bea174b277b31b471d5b70d44f925d95&action=view)

This video describes the layout of a chemical engineering facility.

[Retrieved June 28, 2018]

## INTERNET RESOURCES

- Evaluate process data

- ❖ **Energy efficiency hierarchy evaluation based on data envelopment analysis and its application in a petrochemical process**

<http://www.fao.org/docrep/T0690E/t0690e03.htm#TopOfP>

This webpage from Wiley online library provides a downloadable PDF on the topic of energy efficiency evaluation.

[Retrieved February 12, 2018]

- ❖ **How to evaluate process and quality data to boost your production**

<https://blog.bosch-si.com/industry40/evaluate-process-and-quality-data/>

This webpage provides tips and possible solutions on improving the quality of processes in manufacturing.

[Retrieved February 12, 2018]

- Operate process equipment

- ❖ **How to start an oil- and petrochemical-related business**

<http://smallbusiness.chron.com/start-oil-petrochemicalrelated-business-18006.html>

This webpage provides information and recommendations on starting a new oil/ petrochemical business.

[Retrieved February 12, 2018]

- ❖ **18733 Operate equipment for distillation in a petrochemical workplace**

<http://smallbusiness.chron.com/start-oil-petrochemicalrelated-business-18006.html>

This downloadable word file provides a guide of a unit standard in the operation of petrochemical plant.

[Retrieved February 12, 2018]

- ❖ **Chemical and Process Engineering Final Year**

[https://ph.video.search.yahoo.com/yhs/search;\\_ylt=AwrtEKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted\\_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted\\_003&type=wbfpkvid\\_18\\_11#id=11&vid=daf77004c66ba8338bbaaa32ce937949&action=view](https://ph.video.search.yahoo.com/yhs/search;_ylt=AwrtEKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted_003&type=wbfpkvid_18_11#id=11&vid=daf77004c66ba8338bbaaa32ce937949&action=view)

This video shows various experiments in chemical engineering laboratory.

[Retrieved June 28, 2018]

- ❖ **The Chemical Process Simulator**

[https://ph.video.search.yahoo.com/yhs/search;\\_ylt=AwrtEKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted\\_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted\\_003&type=wbfpkvid\\_18\\_11#id=43&vid=7d46981ad8a30563c0b3051dcf7c9d28&action=view](https://ph.video.search.yahoo.com/yhs/search;_ylt=AwrtEKARTTRboUIAFovfSQx.?p=Chemical+process+technology+quality+in-process&fr=yhs-iry-fullyhosted_003&fr2=piv-web&hspart=iry&hsimp=yhs-fullyhosted_003&type=wbfpkvid_18_11#id=43&vid=7d46981ad8a30563c0b3051dcf7c9d28&action=view)

This video shows a simulation in the operation of process control equipment using simulation software.

[Retrieved June 28, 2018]

## INTERNET RESOURCES

<ul style="list-style-type: none"><li>• Monitor process equipment</li></ul>	<ul style="list-style-type: none"><li>❖ <b>Study on condition monitoring in petrochemical equipment using oil analysis technology</b> <a href="https://link.springer.com/chapter/10.1007/978-3-642-03653-8_322">https://link.springer.com/chapter/10.1007/978-3-642-03653-8_322</a> This downloadable PDF provides tips in monitoring petrochemical plant to improve its operations. [Retrieved February 14, 2018]</li><li>❖ <b>Continuous monitoring improves petrochemical operations</b> <a href="https://www.emerson.com/documents/automation/downstreambusiness-mar2016-continuousmonitoringimprovespetrochemicaloperations-en-us-106590.pdf">https://www.emerson.com/documents/automation/downstreambusiness-mar2016-continuousmonitoringimprovespetrochemicaloperations-en-us-106590.pdf</a> This webpage provides information on monitoring activities and fault diagnosis in the operation of petrochemical plant. [Retrieved February 14, 2018]</li><li>❖ <b>Monitor, analyze, and respond to deviations in petrochemical process</b> <a href="https://www.emerson.com/documents/automation/downstreambusiness-mar2016-continuousmonitoringimprovespetrochemicaloperations-en-us-106590.pdf">https://www.emerson.com/documents/automation/downstreambusiness-mar2016-continuousmonitoringimprovespetrochemicaloperations-en-us-106590.pdf</a> This downloadable word file provides a guide of a unit standard in monitoring the operation of petrochemical plant. [Retrieved February 14, 2018]</li></ul>
<ul style="list-style-type: none"><li>• Qualify in-process and finished product samples</li></ul>	<ul style="list-style-type: none"><li>❖ <b>Quality Control</b> <a href="https://www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/quality-control.html">https://www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/quality-control.html</a> This webpage provides information on quality management activities to ensure that a company's products are exactly what they are supposed to be. [Retrieved February 14, 2018]</li><li>❖ <b>Real-time analysis is critical to quality</b> <a href="https://www.chemicalprocessing.com/articles/2015/real-time-analysis-critical-to-quality/">https://www.chemicalprocessing.com/articles/2015/real-time-analysis-critical-to-quality/</a> This webpage provides information on the analysis of materials and processes involved in chemical processing using various analytical methods. [Retrieved February 14, 2018]</li><li>❖ <b>Quality assurance and quality control</b> <a href="http://www.sgs.com/en/oil-gas/project-life-cycle-services/services-during-manufacturing-of-equipment/services-related-to-suppliers/quality-assurance-and-quality-control">http://www.sgs.com/en/oil-gas/project-life-cycle-services/services-during-manufacturing-of-equipment/services-related-to-suppliers/quality-assurance-and-quality-control</a> This webpage provides information about the quality control services of SGS which assures the quality of all materials, structures, components and systems utilized in the construction, manufacturing and operation of industrial facilities. [Retrieved February 14, 2018]</li><li>❖ <b>Quality assurance training</b> <a href="https://www.slideshare.net/Hardik_Mistry/quality-assurance-15029306">https://www.slideshare.net/Hardik_Mistry/quality-assurance-15029306</a> This webpage describes the formula in providing quality assurance training involving various manufacturing processes in a slideshare presentation. [Retrieved February 14, 2018]</li><li>❖ <b>The 6s Quality Process</b> <a href="https://www.slideshare.net/Hardik_Mistry/quality-assurance-15029306">https://www.slideshare.net/Hardik_Mistry/quality-assurance-15029306</a> This webpage describes the formula in providing quality assurance training involving various manufacturing processes in a slideshare presentation.</li></ul>

## INTERNET RESOURCES

presentation.  
[Retrieved February 14, 2018]

- Perform shutdown activities

- ❖ **The importance of shutdowns in plant operations**

<https://www.amacs.com/the-importance-of-shutdowns-in-plant-operations/>

This webpage provides information about the importance of plant shutdowns in order to perform necessary maintenance, repairs, equipment replacements, and to perform internal maintenance.

[Retrieved February 14, 2018]

- ❖ **What are refinery shutdowns and turnarounds?**

<https://www.kendrickoil.com/products-services/what-are-refinery-shutdowns-and-turnarounds/>

This webpage provides explanations about conditions related to refinery shutdown and turnaround including its effects in operations.

[Retrieved February 14, 2018]

- ❖ **Commissioning, start-up and shutdown**

[http://www.separationprocesses.com/Operations/POT\\_Chp04.htm](http://www.separationprocesses.com/Operations/POT_Chp04.htm)

This webpage provides information on various commissioning, start-up and shutdown activities.

[Retrieved February 14, 2018]