

PROFESSIONAL ENGINEER

Summary Statement

These are the competency Units and Elements. These elements must be addressed in the Summary Statement (see Section C). If you are applying for assessment as a Professional Engineer, you will need to download this page, complete it and lodge it with your application.

Competency Element	A brief summary of how you have applied the element	Paragraph in the career episode(s) where the element is addressed
PE1 KNOWLEDGE AND SKILL BASE		
PE1.1 Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline	<p>I used my knowledge, excellent experience in planning and controlling project, my courses, studies and premier experience in Quality Management systems successfully to afford assigned tasks to me & showed engineering discipline in team work and controlling unit tasks.</p> <p>I learnt methods of Engineering Economics & used my previous experience in Quality Cost Control to increase feasibility of the project and had courses about fundamental requirements of Knowledge management Systems.</p> <p>I prosperity used my university courses about Supply Chain Management & Resource Management and learnt concept of Just In Time & Kanban so demonstrated my ability in perception and requirement transferring of Logistic.</p>	CE1.7 CE1.16 CE1.20 CE2.4 CE2.16 CE3.4 CE3.20
PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics and computer and information sciences which underpin the engineering discipline	<p>I represented my knowledge about Microsoft project software to control project tasks and planning/actual progress. I used Excel software to collecting and analyzing projects data.</p> <p>I located projects' layouts employed my knowledge in the field of Minitab software and learnt SPC method to analyze products data according to my courses about designing Layout and my experience in using Visio software.</p> <p>I checked clients website to prepare list of material in Excel files which I had formulated to calculate raw material according to my experience in using network.</p>	CE1.11 CE1.13 CE1.14 CE2.13 CE2.14 CE3.11

PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline	<p>I used my knowledge in the field of Project Management, Financial Management, Inventory Control, studied ITIL standard and gained my experience about Quality control in this project.</p> <p>I determined working processes using my knowledge & experience in the field of IsoTS16949, Quality Management Systems and studied about quality assurance in oil industry.</p>	CE1.8 CE1.18 CE2.8
PE1.4 Discernment of knowledge development and research directions within the engineering discipline	<p>I studied 'A' grade & logistic requirements & perform the necessary training to project members & visited several partner companies to raise my knowledge in production process.</p> <p>I determined project tasks and did planning of tasks. I coordinated units, controlled quality of constructing activities, assemblies & documented project tasks.</p>	CE3.8 CE3.20 CE1.9 CE2.9 CE2.10
PE1.5 Knowledge of contextual factors impacting the engineering discipline	<p>I divided the project into the Planning section & operational implementation section. Then I contracted with a CB representative & designed the Executive Committee of the project.</p> <p>I identified the requirements for obtaining 'A' Grade & created logistic instruction. I trained the concept of JIT and methods to reduce inventories for members of the executive committee.</p> <p>I held a meeting with senior project manager according to my knowledge in the industrial engineering methods and divided my duties into planning and control project & quality control of processes & products & prepared progress reports of tasks</p>	CE3.9 CE1.10 CE1.14 CE2.12 CE3.10 CE3.11

	<p>The project had started to reinforce the internal management and increase company's certificates. Creating quality & knowledge management systems reduce the cost & time of production & identify customer requirements were steps that implemented in project.</p>	<p>CE2.4</p>
	<p>During the project I was also responsible for Identifying processes that must be changed & planning and re-define processes, the concept and use of logistics in the organization and processes and method to do it, coordination with IKCO auditors to conduct 'A' grade Audit, running new production planning system according to IKCO Kanban scheduling system and production and inventory control.</p>	<p>CE3.7</p>

PE2 ENGINEERING APPLICATION ABILITY

<p>PE2.1 Application of established engineering methods to complex engineering problem solving</p>	<p>I hold a meeting with employer's representative and I have presented the project Gantt chart and critical tasks in the meeting. The representative asked to decrease project duration, because of we couldn't increase the number of human resources of project I added compulsory overtime at the end of the working day and weekend's time, I have changed the predecessors of some tasks and changed start of some critical tasks. I also prepared progress reports database in excel file.</p>	<p>CE1.12 CE1.13</p>
	<p>Hina Energy management decided to change the certification company after beginning of the planning stage and starting some of documents. I held several meetings with the new certification company, and quickly I specified new plan and new schedule, so I prevented the project disrupting.</p>	<p>CE2.14 CE2.17</p>
	<p>I changed production procedure in a way that the packaging of each piece of equipment to be collected that fed into the line proportional to the number of pallets. Also considering that carrying some of the equipment should be done by hand, this might be caused bodily injury to personnel so I made sure these activities based on ergonomics instruction</p>	<p>CE3.12 CE3.17</p>

	<p>After specifying all the project tasks, durations, priorities and predecessors in meetings, I had entered all the tasks in the Microsoft excel file & hold a meeting with senior project. Finally with use of project management (MSP) software I had entered task, duration and then I traced project Gantt chart. I determined critical task and regular reports. I prepared progress reports database in excel file. I attended in the workshop before the start of activities and I attempted to update the reports after the end of the last task. I completed check lists during each step and made reports to offer in projects coordination meeting.</p>	<p>CE1.11 CE1.13 CE1.14 CE1.16</p>
<p>PE2.2 Fluent application of engineering techniques, tools and resources</p>	<p>I offered documents to the Certification Company and pre-audit was conducted. Then I did corrective and preventive actions & flowed documentation in the company, and determined first internal audit and enforced non-compliance of documentation. I collect internal audit results and other necessary inputs for management review meeting and I held the meeting.</p>	<p>CE2.16</p>
	<p>I announced the needed parts and raw materials in Excel files on monthly periods according to the customer's monthly production plan. I had prepared production planning in such way that always one Kanban of the parts and assemblies has been required. Then I set logistics resource based on major customer's production schedule & specified production & logistics resource planning flow chart.</p>	<p>CE3.11</p>
<p>PE2.3 Application of systematic engineering synthesis and design processes</p>	<p>I held a meeting with the supervisor of production and specified the new tasks added to project to construct the project within the company according to break of the contract with supplier that was going to construct containers there was the risk of failure in deliver the project on time, in the meeting we agreed to increase working hours, number of human resources and change the dates & duration of some tasks and synchronized some of the tasks. Then I've planned new Gantt chart of the project. I also designed new quality control check lists to get sure that all the containers are well constructed.</p>	<p>CE1.17</p>

	<p>After determining the processes, I had prepared organization chart using Visio software, quality manual and quality policy. I determined customers' requirements and monitoring and measurement customer satisfaction procedure in meeting with sale expert. Then I defined the document management and document control procedure.</p>	CE2.11
	<p>I identified processes that should be reformed under the influence of logistic resources planning in the meeting with the executive committee. Then I redesigned the Production planning, Production and Preservation of product processes.</p>	CE3.10 CE3.12
PE2.4 Application of systematic approaches to the conduct and management of engineering projects	<p>I prepared raw material and equipment lists and determined deadlines of procurement for the supply management unit quickly according to my studies & experience around supply chain management.</p>	CE1.15 CE1.17
	<p>Holding several meetings with experts from different units & Implementation of the project helped me to extend my public relationship to gain knowledge about specialized fields in oil industry.</p>	CE2.10 CE2.20
PE3 PROFESSIONAL AND PERSONAL ATTRIBUTES		
	<p>My strategy was to monitor the progress of tasks on schedule. Throughout the project, due to high urgency of projects deadline.</p>	CE1.9 CE1.19
PE3.1 Ethical conduct and professional accountability	<p>Considering the importance of the shortening duration of the project, as the management representative for quality I tried to be aware of everyone's duties. As a project manager I was responsible to optimize the time that specialists spend on the project.</p>	CE2.19

	<p>As the project's industrial engineer my strategy was to do project tasks to implement practically of production planning, production and warehousing to improvement of logistics processes & I tried to make sure that new processes was completely replaced the previous processes with continuous monitoring, doing multiple Audits and holding frequent meetings with unit managers and supervisors.</p>	CE3.19
	<p>I held a meeting with CITY BANK representative and senior project manager so CITYBANK representative asked to decrease project duration, so we held another meeting with project members to increase daily working time & after reform project duration, I sent the final Gantt chart for the representative.</p>	CE1.12 CE1.16
PE3.2 Effective oral and written communication in professional and lay domains	<p>I sat a date for internal audit and announced it to the units in internal Audit form. To carrying out internal Audit there was needed of at least 2 auditors to audit each other units and the other units so I enrolled two member of the executive committee in the internal audit of ISO9001:2008 course.</p>	CE2.10 CE2.15
	<p>I prepared transport and working ergonomics instruction and installed it in the production hall, then in a meeting with the head of production insisted on paying attention to it and reducing safety risks that caused damage.</p>	CE3.17 CE3.18
PE3.3 Creative innovative and proactive demeanor	<p>One of the other challenges of the project was to transferring the equipment to outside Iran's borders, if quality control of any equipment was not 100%, any defect in equipment could cause heavy financial losses. So I have planned detailed check lists for each level of construction until carrying the load. I controlled the dimensions, telecommunications infrastructure and spare parts that were in the containers. I did the ultimate control and sealed each of the containers and hanged the quality control label on equipment.</p>	CE1.17 CE1.18
	<p>So I quickly have provided documentation related to changes and delivered and approved at the Executive Committee meeting of project. Throughout the project, due to Change of commercial manager, some of related processes had changed</p>	CE2.18

	<p>In this Project due to the need for computerizing transportation within the company which was so expensive for the company, I used industrial engineering methods to define low cost methods I have traced the movement of vehicles path and put barriers to prevent from disrupting and imposed the least cost to the company.</p>	CE3.16
PE3.4 Professional use and management of information	<p>I prepared progress reports database, S-curve reports, banana reports and other charts, gathering information of tasks status in excel file & by determining the daily planning and actual progress and comparing them together. I attempted to update the reports every day Cause I was responsible for quality control</p>	CE1.13 CE1.14
	<p>I enrolled two member of the executive committee in the internal audit of ISO 9001:2008 course. I determined first internal audit after 1 month of implementation of quality management system. In the following I collect internal audit results and other necessary inputs for management review meeting.</p>	CE2.15 CE2.16
	<p>In order to cover the requirements of the project I divided preservation of product to the packing, receiving, and sending and transportation procedure.</p>	CE3.13
	<p>Considering the change in project tasks, I paid special attention to the critical tasks. I was responsible for coordinating the different units and I tried to create an active atmosphere and follow up higher priority activities to provide condition for on time project progress.</p>	CE1.10 CE1.19
PE3.5 Orderly management of self, and professional conduct	<p>I defined duties of each job and its specification in meeting with unit managers & I've sat training procedure. I have conveyed documentation for running in the organization after passing the documents in Executive Committee.</p>	CE2.12 CE2.20
	<p>I determined method of controlling inputs from suppliers and input from factory production line and defined Kanban and containers location in factory layout. I prepared containers sort standard at the time of transferring the product to the customer and in order to ensure its implementation I printed it in large pages and installed in the warehouse.</p>	CE3.14

PE3.6 Effective team membership and team leadership	<p>I prepared check lists with cooperation of variety project specialists to determine quality of the task done. I completed check lists during each step and made reports to offer in projects coordination meeting.</p> <p>In a meeting with CEO of company I had attempted to designate the Executive Committee. I hold a meeting with the Executive Committee and determined working processes.</p> <p>I held a meeting with factory manager & production engineering and determined indexes to evaluate the production process. I have specified vehicles that used for transporting goods In a meeting with factory manager and warehouse expert. Then I determined at a meeting with business manager and factory manager, the location of customer's pallets in the factory layout. I defined devices that used for the movement of goods in a meeting with production supervisor.</p>	CE1.12 CE1.13 CE1.15 CE1.16 CE2.10 CE3.12 CE3.15
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