

course description



این فایل به منظور کمک به متقاضیان تحصیل در کشور ایتالیا توسط گروه فلی تو ایتالی به صورت رایگان تهیه شده است لطفاً از خرید این فایل خودداری فرمایید.

اسفاده از این فایل در صفحات مجازی و وبسایت ها با ذکر نام تهیه کننده بلامانع است.

کانال تلگرام
فلی تو ایتالی



کانال یوتیوب
فلی تو ایتالی



پیج اینستاگرام
فلی تو ایتالی



سایت
فلی تو ایتالی



معرفی فلای تو ایتالی

سلام!

تیم فلای تو ایتالی متشکل از چند دانشجو که فعالیت خودمون را از ماه بهمن سال 1401 آغاز کردیم و هدف تیم ما این است که به شما کمک کنیم تا بتوانید به صورت مستقل و بدون نیاز به مشاوران مهاجرتی برای دانشگاه های ایتالیا اپلای کنید و پذیرش بگیرید . با توجه به اینکه بسیاری از موسسه های مهاجرتی هزینه های بالایی را برای اخذ پذیرش از دانشگاه های ایتالیا از دانشجو دریافت میکنند ، ما تصمیم گرفتیم با تلاش و تجربه خود به دانشجو ها کمک کنیم که بدون هزینه اضافه کار های مهاجرتی خودشان را انجام بدهند .

در این راستا در طی سال های گذشته ویدئو های مختلفی را برای نحوه اپلای کردن دانشگاه های ایتالیا ضبط و منتشر کردیم تا به دانشجویان کمکی کرده باشیم تا بتوانند در این مسیر با کمترین هزینه از دانشگاه های ایتالیا پذیرش بگیرند .

پس اگر سوال یا نیاز به راهنمایی در زمینه مهاجرت تحصیلی به کشور ایتالیا داشتید ، با ما همراه باشید و سوالات خودتون را از ما بپرسید . ما در کنار شما خواهیم بود و شما را همراهی خواهیم کرد .

مدیریت fly to italy



طریق استفاده از فایل

برای استفاده از این فایل ، صفحات بعد را کپی گرفته و به
دانشگاه مبدا ببرید و تاییدات لازم را بگیرید



Compulsory Courses (53 Units)

Course TITLE	Units
Probability Theory & Its Application	3
Operations Research I	4
Basic & Cost Accounting	3
General Economics I	2
General Economics II	2
Plant layout	3
Quality Control	3
Motion and Time Study	3
Manufacturing Process I	3
Production & Inventory Control I	3
Engineering Economy	3
Project Control	3
Final Project	3
English for Industrial Engineering	2
Basic Management	3
Engineering Statistics	3
Computer Information systems	3
Management Information & control Systems	3
Computer Lab	1
Practical Training	0
Total	53

Basic Courses (40 Units)

Course TITLE	Units
Mathematics I	4
Physics I	3
Mathematics II	4
Physics II	3
Introduction to Programming	3
Basic Physics Lab. I	1
Basic Physics Lab. II	1
Differential Equations	3



Statics and Strength of Materials	3
Introduction to Linear Algebra	3
Engineering Graphics I	2
Engineering Graphics II	2
Fundamentals of Electrical Engineering	3
Materials Sciences	3
Machin Tools workshop	1
Welding Sheet Workshop	1
Total	40

Elective Courses (27 Units)

Course TITLE	Units
Operations Research II	4
Advanced manufacturing process	3
Probabilistic models & Queueing	3
Production & Inventory Control II	3
Regression Analysis	3
Industrial Safety and Health	2
Decision Making	3
Transportation Planning	3
Introduction to Innovation Management	3
Total	27

General Courses (20 Units)

Course TITLE	Units
Persian Literature	3
Foreign Language	3
Islamic Anthropology	2
Quran interpret	2
The History Of Amamat	2
Islamic Revolution of Iran	2



Islamic Thought 1	2
Life Style	2
Sport1	1
Health & Physical Activity	1
Total	20



Description of Courses: Industrial Engineering

Course Title	Covered Materials & References
General Economics	Introduction to microeconomics, production factors, basic economic issues (usage degree of available resources, selecting the type and amount of goods and services, methods of production and distribution of goods and services, determination of performance or efficiency of production and distribution, economic growth), production possibility curve, definition of demand, demand curve, factors that affect demand, demand sensitivity, definition of supply, supply curve, factors that affect supply, changes in supply, supply sensitivity, balance between supply and demand and price, demand forecasting, (correlation analysis, regression analysis, time series analysis), production theory (production function, production steps), costs (fixed costs, variable costs, total cost, average cost), income (total income, average income, final income), breakeven point analysis, determination of price and production levels in various markets. Introduction to macroeconomics , static and dynamic economic analysis, definition of national income, GNP,GDP, production and income, the difference between income and capital, measuring national income, national income to price factors, value added, national income to fixed price. Balance and imbalance in economic development, mechanisms of economic prosperity, mechanisms of recession and crisis, recent economic crises, definition of inflation, types and causes of inflation and its solution methods. Paasche index, laspeyres formula, price indices: PPI, CPI. References: 1. Macroeconomics (theory and its application): Dr. Mohammad Tabibian



	2. Theory and Macroeconomic Policy: Mehdi Taghavi 3. Macroeconomics: Fereydoon Tafazzoli 4. Microeconomics: Mehdi Taghavi 5. Theory of Microeconomic issues : Richard Perluan
Physics I	Measurement, Motion in two and three dimensions, forces and Newton's laws and its application, momentum, systems of particles, rotational kinetics, rotational dynamics, angular momentum, work and kinetic energy, potential energy, conservation of energy, gravitation, temperature, molecular properties of gasses, first law of thermodynamics, entropy and second law of thermodynamics. Reference: Fundamental of Physics: Fundamentals of Physics, Part 1&2. David Halliday, Robert Resnick
Engineering Economy Prerequisite: General Economics	Decision making process and definitions related to the engineering economy and alternatives, balanced benefit formulas, alternatives comparison methods: Annual costs, present value, calculation of interest rates, Benefit-Cost ratio, relations between engineering economy and depreciation, minimum attractive rate of return, multiple alternative comparison,(NPW, NEUA, ROR, B/C), sensitivity analysis in engineering economy, engineering economy under uncertainty. References: Engineering Economy: Gerald W. Smith Engineering Economy: HG Thuesen, WS Fabrychy and JG Thuesen Principle of Engineering Economy: Grant.EL, WG Ireson
Material Science	Introduction to materials science: mechanical, thermal, magnetic, and structure properties of materials. Atomic arrangement in solids: Crystallization, crystal system, cubic crystals. Structure of non-crystalline materials. Dislocation in crystals and diffusions. Grain boundary, electric transfer in solids, conducting metal, insulators, semiconductor materials. Single phase alloys, microscopic structure of multi-crystal metals, elastic deformation, plastic deformation. Crystallization. Fatigue, creep, fractures of metals. Phase diagrams (Iron-Carbon, Iron-Cementite, and Iron-Graphite), chemical composition of phases, phase values, solid phase reactions, sedimentary processes, work hardening and hardness measurement, and tensile test. Clustering theory. Heat treatment. Casting and forging. Welding. Reference: Foundations of Materials Science and Engineer: William Smith, Javad Hashemi



Basic Physics Lab. I	Practical Experiments Related to “Physics I” Course
Mathematics I	Cartesian coordinates; polar coordinates; complex numbers; addition, product, root & geometrical representation of complex numbers; polar representation of complex numbers; function; functions algebra; limit and relevant theorems; infinite limit and limit in infinite; left-hand and right-hand limit; connectivity; derivative; derivation formula; inverse function and its derivative; trigonometric functions derivative and their inverse functions; Rolle’s theorem; mean theorem; Taylor expansion; geometrical and physical applications of derivative; curves and acceleration in polar coordinates; application of derivative in approximation of equations roots; definition of integral of continuous functions and piecewise continuous; basic theorems of differential & integral arithmetic; primitive function; approximate methods of integral estimate; application of integral in computation of area, volume, length of curve, moment, center of gravity and labor (in Cartesian and polar coordinates); logarithm and exponential function and their derivative; hyperbolic functions; integration methods such as change of variable, component and decomposition of fractions; transform of special variables of sequence and numerical series and relevant theorems. Power series and Taylor theorem and recursive functions. References: Modern Calculus and Analytic Geometry: R. A.Silverman. Calculus: Louis Leithold Advanced Calculus: Spiegel
Statics & Strength of Materials Prerequisite: Mathematics I.	Force definitions, forces in plain, forces in space, equivalent systems of forces of rigid bodies, equilibrium of rigid bodies (two and three dimensions) distributed forces: centroids and centers of gravity. Trusses, frames and machines, beams, cables, friction, moments of inertia. Concept of stress and strain, Mohr’s circle, axial loading, torsion, analysis and design of beams for bending, shearing stresses in beams and thin walled members, transformation of stress and strain, principal stress under given conditions, deflection of beams, columns, energy methods. References: Mechanics of Materials by Ferdinand Beer, Jr.,E. Russell Johnston, John DeWolf, and David Mazurek Vector Mechanics for Engineers: Statics by Ferdinand Beer, Jr.,E. Russell Johnston, Elliot Eisenberg, and David Mazurek



Differential Equations Prerequisite: Mathematics I.	Nature of differential equations and their solution, family of graphs and vertical routes, physical patterns, separable equation, first order linear differential equation, homogeneous equation, second order linear equation, homogeneous equation with fixed constants, method of indefinite constants, method of changing parameters, application of second order equations in physics and mechanics, solution of differential equation with series, Bessel and Gamma functions, Legendre polynomial, an introduction to differential equations set, Laplace transform and its application in solving differential equations. Reference: Elementary Differential Equations and Boundary Value Problems: W. E. Boyce and R.C. DiPrima.
Physics II Prerequisite: Physics I	Electric charge and Coulomb's law, the electric field, Gauss' law, electric potential energy and potential, the electric properties of materials, capacitance and capacitors, DC circuits, the magnetic field and magnetic field of a current, Faraday's law in induction, magnetic properties of materials, inductance, AC circuits, Ampere's law. Reference: Fundamental of Physics: Fundamentals of Physics, Part 3 : David Halliday, Robert Resnick
Mathematics II Prerequisite: Mathematics I.	Analytic geometry in Euclidean plane and Euclidean space, Vector-Valued functions, elementary theory of curves and surfaces, Frenet-Serret apparatus, multivariable functions (limit and continuity, partial derivative), polar, spherical and cylindrical coordinates, multiple integration, green and stokes theorems, elementary account of differential forms. References: Modern Calculus and Analytic Geometry: R. A.Silverman. Calculus: Louis Leithold Advanced Calculus: Spiegel
Introduction to Programming	Introducing organization and main parts of computer, machine language and assembly, numeric and non-numeric data representation, algorithms and sub-algorithms and flowchart, basic concepts such as frequency, familiarity with Pascal programming language: constants and variables, computational and logical phrases, different types of instructions, different types of conditional operations loops, vectors and matrices, subprograms, input and output instructions, common algorithms such as methods of search and arrangement, practical examples of programming.



	Reference: Pascal 5th Edition: Elliot B. Koffman
Engineering Graphics	Introduction to origin of industrial drafting and its application; definition of projection; drawing of projection, point, line, plane; substance on a projection plane; introduction of main pages of projection; three projections drawing principles; geometrical relation between different projections; drafting tools and their application; standard dimensions of drafting papers; different types of lines and their application; table of map specifications; geometrical drawings; different methods and introduction of first and third order of dihedron; method of drawing three images of a substance in third order of dihedron; method of drawing six images of a substance in first order of dihedron; dihedron transform; image drawing from simple models; measure writing and application of letters and figures; drawing image of a substance through its determined images using method of identification of surfaces and volumes; definition of shear, simple shear (symmetric & asymmetric); broken shear; slant and radial broken shear; simple semi-shear; broken semi-shear; local shear; circulation and transformed shears; exceptional in shear; definition of concrete projection and its application; classification of concrete projections; normal concrete projection (isometric, diametric, trimetric); slant concrete projection including isometric slant (cavalier) and diametric slant (cabinet); bolt and nut junctions; rivet, welding and method of drawing of their different types; method of drawing of modulated maps in brief.
Basic & Cost Accounting	An overview of the financial accounts and introduction to asset items, liabilities, capital, income and expenses, investment accounts, purchasing and payments, and depreciation, profit and loss account, the balance sheet, calculating final cost of goods produced in an institutions, billing cash flow, costs classification, methods of inventory pricing in warehouses, FIFO and LIFO methods , fixed assets and machinery depreciation calculation methods, application of cost accounting in assessment and control of operations . Reference: Cost Accounting Wast Publishing Compang: Barfied. Raiborn. Dalton
Manufacturing Process Prerequisite: Strength of Materials.	Principles and tools of measurement, hand tools and lining tools, metal machinery: Sawing, types of saw machines, capacity, usages, different kinds of saw blades. Drilling, types of drilling machines and their applications, principles of digging holes, cutting speed. Turning machines, various accessories, machine parts, cutting tools, cutting angle, cone cutting methods, bolts and their production method. Types of milling machines (horizontal, vertical, universal,



	gateway), types of gears. Series machinery, production methods with special machines: NC, CNC, PLC, EDM, ECM, USM, and Spark machines. Forming molten metals, casting processes, sand casting, centrifugal casting, rotational casting, coating, steel sheet and wire production methods, iron and steel permanent molding, DIE casting, investment casting, permanent casting. Hot chamber and cold chamber, metal production methods, Extrusion, aluminum, magnesium and copper alloys forging, bending, and rolling, pipe production methods, capsules production methods, wire extrusion, cold rolling, forming and twisting by cold rolling, metal spinning, stretch forming, drop, hammer forming, cold bending, powder metallurgy, soldering, welding, plaster casting, types of plastics and plastics forming, plastics processing, heat-soft plastics, heat-hard plastics, acrylics, cellulose materials, polyethylene, polypropylene, vinyl (PVC, PVDC), poly acetyls, poly carbonate, polyamide, (nylon), types of plastic molding, injection, reaction injection molding, blow molding, injection blow molding, pressure molding, transfer molding, thermal shaping, mechanical shaping. References Machine Shop Practice (vol. I, II): Karl Hans Moltrecht Machine Tool Operation Part I, II: Henry D. Burghardt and Auron Axelrod Technology of Machine Tools: F. Krar & YWOswald Manufacturing Processes: Amstead, B H & Phillippe F Oswald & Myron L Begeman Metals Hand Book (Forging and Casting)
Probability Theory & Its Application Prerequisite: Mathematics II.	Combinatorial analysis, axioms of probability, conditional probability and independence, Bayes' formula, random variables, continuous random variables, jointly distributed random variables, mathematical expectation, properties of expectation, limit theorems. Reference: A First Course in Probability, Sheldon Ross, M
Machine Tools Workshop	An introduction to principles of safety and health in workshops and modality of application of tools and instruments in these workshops. In this course, the student shall learn method of work with workshop tools and equipment in machine tools, and practical experience with machine tools with a project.
Transportation Planning	An introduction to planning transportation in metropolitan areas. The approach, while rooted on the analytical tools, which estimate outcomes and benefit/cost ratios of a given alternative, follows a holistic approach. This means starting from a scan of the site, its



	history and its current trends, in order to frame properly the problem, including the relevant Factors, institutions, roles and interests. The design and evaluation of alternatives considers this complexity, in addition to construction, operation and maintenance issues. The decision and implementation process, including the needed feedback mechanisms, focuses as well on the need to build constituencies and alliances.
Decision Making	Decision making under uncertainty is the key to understanding a variety of problems from industry, including inventory control, revenue management, energy, healthcare, and logistics. This course covers the fundamentals of stochastic (sequential) decision models, including data-driven and risk-averse methods, with applications to real-world problems.
.Regression Analysis	Hypotheses testing; multiple regression; empirical model building; analysis of variance and design of experiments; goodness-of-fit tests and contingency tables; introduction to statistical quality control.
Basic Physics Lab. II	Practical experiments related to “Physics II” course.
Motion & Time Study Prerequisite: Production Methods.	Productivity, work study, registration of events, OPC, FPC, flow diagrams, economic movement principals, therblings, work measurement, time measurement, work sampling, structured standard data, analytical and comparative estimating, quantitative techniques for human, machine relations, linear production techniques, line balancing. Reference: Motion and Work Time : Barnes Ralph M
Engineering Statistics Prerequisite: Theory of Probability & its Application.	Introduction. Special probability distributions. Special probability densities. Functions of random variables. Sampling distributions. Decision theory. Point Estimation. Interval estimation. Hypothesis testing. Tests of hypotheses involving means, variances, and proportions. Regression and correlation. Analysis of variance. Design and analysis of experiments. Reference: Mathematical Statistics: John E. Freund
Operations Research I Prerequisite: Linear algebra Engineering statistics	Operations research models, modeling with linear programming, graphical LP solution, the simplex method and sensitivity analysis, M-Method, Two-Phase method, degeneracy, algebraic sensitivity analysis, changes in the right-hand side and objective function, duality and Post-Optimal analysis, economic interpretation of duality, transportation models and its variants, the assignment models, Hungarian method, transshipment model, revised simplex



	method, parametric linear programming. Introduction to LINGO and WinQSB packages. References: Operations Research, an introduction/ Hamdy A.Taha Mathematical Programming: Hillier & Liberman
Fundamentals of Electrical Engineering Prerequisite: Physics II.	Production and transmission and distribution of power, industrial power distribution, three-phase power, magnetism and magnetic circuits, magnetic force calculations, the core losses in magnetic circuits, DC electric machines, DC generators, DC motors. Principles of work and types of permanent flow generator, permanent flow generating characteristics, principles and types of permanent flow engines work .synchronized permanent flow engines. Construction of the alternating current generators (alternator), synchronous induction motors, asynchronous induction motors, single phase and three phase motors.
Probabilistic models & Queueing	The purpose of the course is to present some of the classical results in queueing theory, mainly in the analysis of single-server queues and Markovian (reversible) stochastic networks. Another goal is to present a set of tools and techniques which can be used in other areas of applied probability, such as martingale techniques, reversibility, weak convergence, the continuous-mapping theorem, and level-crossing
Production & Inventory Control I Prerequisite: Operations Research I.	Introduction to Supply chain management, MRP, ERP, types of production systems, Inventory and production planning and control, types of inventory costs, types of order systems, FOS and FOI systems, ABC analysis, economic order quantity, Wilson's formula, sensitivity analysis, inventory models, safety stock calculations, probabilistic inventory models, with variable lead time, variable demand, and variable cost. Multi-product inventory models. Forecasting methods: Regression, weighted moving average, exponential smoothing with adjusted trend, types of trends. Compression indices for forecasting methods: Cumulative forecast error, average forecast error, mean square error, mean absolute error, mean absolute percent error. Reference: Operations Management: William J Stevenson
Project Control Prerequisite: Operations Research I.	Definitions of project and control, initial schedule plan, work breakdown structure, types of WBS, CPM, predecessors, network techniques, Gantt chart, allocation of resources, project progress measurement, S-Curve, probabilistic methods of project planning and controlling (PERT, GERT). Max flow—min cut method.



	References: Project Management With CPM, PERT: Joseph J. Moder, Cecil R. Phillips, Edward W. Davis Systems Analysis and Design Using Network Techniques: Whitehouse, Gary E.
Welding Sheet Workshop	Safety issues and procedures of welding, different types of welding methods and instruments, and power supplies. Electric arc welding, creating electric arc, setting the correct electrode gap, and electrode angles, oxidation conditions. Basic weld joints: butt joint, lap joint, corner joint, edge joint, and T-joint. Oxyacetylene welding.
Quality Control Prerequisite: Engineering Statistics.	Introduction to significance of quality in business; quality policy and its objectives , economic aspects of quality, Statistical interpretation, role of Statistical Quality Control (SQC) in Total Quality Management (TQM) and Six Sigma; SQC tools and techniques, methods of statistical process control and capability analysis, control charts for variables and attributes, process and measurement system capability analysis, sum and exponentially weighted moving average control charts, multivariate process monitoring and control, engineering process control and SPC tools, acceptance sampling, OC curve, AOQL, LTPD, Dodge-Romig Sampling Plans. Lot-by-Lot acceptance sampling for attributes, Design of Experiments (DOE). References: Introduction to Statistical Quality Control : Douglas C. Montgomery Statistical Quality Control : Eugene Grant, Richard Leavenworth Juran's Quality Handbook : Ian Howe
Operations Research II Prerequisite: Operations Research I.	Network models, minimal spanning tree algorithm, shortest-route problem, goal programming algorithms, integer linear programming, set-covering problem, Branch-and-Bound (B&B) algorithm, cutting-plane algorithm, deterministic dynamic programming, forward and backward recursion, decision analysis, decision making under certainty, risk, and uncertainty, Analytic Hierarchy Process (AHP), game theory, queuing systems, Poisson queuing model, multiple-server models, machine servicing model—(M/M/R):(GD/K/K). (M/G/1):(GD/∞/ ∞)—Pollaczek-Khintchine (P,K) formula, unconstrained and constrained nonlinear programming algorithms, quadratic programming. References: Operations Research, an introduction: Hamdy A.Taha Mathematical Programming: Hillier & Liberman



Plant layout Prerequisite: Production Methods. Technical Drawing. Motion and time study	Introduction to plant layout definitions, steps of layout planning, S.L.P algorithm. Types of production technologies: Fix product layout, product layout, process layout, group layout, job shop, and continuous layout, FMS, machine and device and human resource requirement calculations, materials flow, simple assembly line balancing, computer algorithms for layout planning CRAFT,COFAD,ALDEP,CORELAP,PLANET, service industries layout planning, nonproductive units planning, warehouse layout planning, material handling systems and transportations systems, quantitative location allocation models, Spiral techniques, traveled charting, relationship diagram, flexible layout models, contour Lines. Reference: Plant Layout and Material Handling: James M. Apple
Basic Management Prerequisite: Motion & Time Study.	Introduction to management principles, managers and management: history module and the historical roots of contemporary management, the management environment, PLANNING: Foundations of planning, foundations of decision making, quantitative module quantitative decision-making aids. ORGANIZING: Basic organization designs, staffing and human resource management, career module building a career, managing change, stress, and innovation, LEADING: Foundations of individual and group behavior, understanding work teams, motivating and rewarding employees, leadership and trust, communication and interpersonal skills, CONTROLLING: Foundations of control, operations management Reference: Fundamentals Of Management: Essential Concepts And Applications: Stephen P. Robbins, David A. DeCenzo
Production Inventory Control II Prerequisite: Production Inventory Control & Planning I.	Introduction to types of BOM and part list. aggregate inventory investment, lot sizing methods and their application in MRP such as : Least unit cost, least total cost, unit inventory cost, silver and meal's heuristic method, mean cost per period, Wagner and Within's algorithm. Fordyce & Webster solution. Multiple constraint scheduling, Just In Time concepts (JIT), distribution requirements and management issues with DRP, capacity planning and utilization, Master Production Scheduling (MPS), Enterprise Resources Planning (ERP) References: Manufacturing Planning and Control System For Supply Chain Management: Thomas Vollmann, William Berry, David Clay Whybark, F. Robert Jacobs



	Principles of Inventory and Materials Management: Richard J. Tersine Production and Inventory Management: Donald W. Fogarty, John H. Blackstone, Thomas R. Hoffmann
Management Control & Information Systems Prerequisite: Operations Research I.	Introduction to management information systems (MIS), systematic approach and system parameters. Introduction to classic and organizational approached mythologies such as SSADM, BSP, JSD, Oracle, RUP, information engineering, information architecture, and CASE tools. Reference: Basic Information Systems Analysis and Design: M. Chester and A. Athwall. Structured Systems Analysis and Design Method: Ed Downs, Peter Clare, Ian Coe
Practical Training Prerequisite: Passing 100 course credits.	Students have to work in a company or manufacturer in a field related to their interests or project for 240 hours.
Linear Algebra (Calculus) Prerequisite: Mathematics I	This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology.
English for Industrial Engineering Prerequisite: English Language.	English reading texts covering subjects in: work study, factory design, production systems, operations research, ergonomics, engineering economy, production methods, time measurement, quality control, transportation, computer applications in industrial engineering, project control, principles of management, computer simulation.
Industrial Health & Safety	History and development of safety, laws on occupational health and safety, the administration of safety, inspection and control, remove and control the risks at work, recording accidents at work, investigate the causes of accidents and related costs, accident insurance, education, expanding and motivating for safety in factories, safety in office environments, safety in industrial environments, planning for emergencies, personal protection equipment, public health issues, health services, Safety of non-working people in environment, support organizations of immune systems, electrical hazards, fire prevention. Reference: Industrial Accident Prevention: Herbert W Heinrich



Final project	A research project assigned by adviser to student about research areas of Industrial engineering and related to their interest too.
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