Course Description

1. CH-101 Applied Chemistry (2-0-2)

The main objective of this course is to provide engineering students a background in concepts of chemistry that have wide ranging applications. Emphasis will be placed on concepts that are more relevant for engineering related practical applications. Examples relevant to engineering will be discussed throughout the course. This course has been divided into three sections or parts. The first part of this course will cover in detail the concepts that are necessary to understand the structure of an atom and wave like nature of matter. The importance of these concepts in terms of understanding the working principle of electron microscopes will be highlighted. In the second part of the course core concepts like periodic trends, atomic bonding and bond strength will be covered. The final part of the course will cover important concepts that will deal will calculating the heat changes associated with chemical changes. Fuel chemistry and combustion chemistry will also be covered in the same section.

2. HU-121 Communication Skills (2-0-2)

This course aims to help students build their communication skills and English language proficiency. During this course, students will work on the four main skills (reading, writing, speaking and listening) through interaction with one another and the teacher in individual, pair and group work. The primary focus would be to build students' oral skills. They will be given opportunities to research, talk and present on various topics. This aims to raise interest in current affairs and is a good basis for the development of language skills.

3. ME-139 Engineering Drawing and Graphics (1-0-1)

This course is a part of engineering foundation. It is targeted to help student visualize the basics of engineering design. Emphasis would be on basic drawing concepts and the classical techniques of manual drawing. It is intended for improving students approach towards conceptual design.

4. HU 119 English Comprehension & Composition (3-0-3)

The course aims to help students build their writing proficiency. The students will be given opportunities to research, talk and present on various topics. This aims to raise interest in current affairs and is a good basis for the development of vocabulary, reading, writing, listening and oral skills.

5. MA-101 Calculus-I (3-0-3)

The objective of this course is to introduce the fundamental ideas of the differential and integral calculus of functions of one variable. This course is primarily meant to strengthen the knowledge of students about limits, differentiation and integration. Also it is meant to enable the students to grasp abstract concepts by studying concrete examples from science and engineering. It is a tool used almost everywhere in the modern world to describe change and motion. Its use is widespread in science, engineering, medicine, business, industry, and many other fields. Calculus also provides important tools in understanding functions and has led to the development of new areas of mathematics including real and complex analysis, topology, and non-Euclidean geometry.

6. ME-100 Introduction to Mechanical Engineering (1-0-1)

This course will introduce the first-year students to the continuously-developing field of mechanical engineering. Students shall learn about who mechanical engineers are, what they do, and what technical, social, and environmental challenges they solve with the technologies they create. Students shall also learn that engineering is a practical endeavor with the objective of designing things that work, that are cost-effective to manufacture, that are safe to use, and that are responsible in terms of their environmental impact. Most importantly students shall learn to perform some of the calculations to solve trivial technical problems and communicate their results, within the domains of mechanical structures, engineering materials, fluid mechanics, thermal energy and motion and power transmission systems.

7. ME-121 Engineering Statics (3-0-3)

This is the first course in Mechanics which covers the general principles of statics and the equilibrium of bodies under the action of forces. In chapter 2, the properties of forces, moments, couples and resultants are developed. In both chapters 2 and 3, analysis of two- and three-dimensional problems have been treated. Chapter 4 deals with the application of equilibrium principles to simple trusses and to frames and machines. Chapter 5 deals with distributed forces and areas under the curve. Chapter 6 is concerned with friction and its selected applications.

8. ME-139L Engineering Drawing and Graphics Lab (0-1-1)

This course is a part of engineering foundation. It is targeted to help student visualize the basics of engineering design. Emphasis would be on basic drawing concepts and the classical techniques of manual drawing. It is intended for improving students approach towards conceptual design.

9. ME-140 Workshop Practice I (0-1-1)

This coursework would enable the students to understand and practice the processes and procedures involved in basic mechanical work such as carpentry, welding, metal working and electric wiring. Students will learn about basic ferrous/non-ferrous engineering material and use of various hand tools on these materials and sheet metals. Moreover, this course will enable them to understand the basic types of woods and its seasoning, use of various wood tools especially in making different types of wood joints. Understanding of welding, various types of welding techniques and then will create various types of welding joint. Understanding of the basics of electrical wiring, safe electrical work practices, types and uses of cables, electrical codes, electric circuits, study of house hold electrical appliances and use of various electrical instruments in making electrical circuits.

10. PH-101 Physics (2-1-3)

To provide students with basic principle required for understanding of mechanics and fundamentals of Electromagnetism. To enable students to apply the basic principles of Physics in daily life. The students are intended to use the subject matters in analyzing and solving real life problems as well as industrial mechanical problems.

11. CE-112 Computer Programing (2-0-2)

This course aims to make the students understand the basics of computer programming, with an emphasis on the functional programming and implementation of medium level difficulty algorithms in C++.

12. CE-112 Computer Programing Lab (0-1-1)

This course aims to make the students understand the basics of computer programming, with an emphasis on the functional programming and implementation of medium level difficulty algorithms in C++.

13. MA-105 Multivariable Calculus (3-0-3)

In this course our goal will be to master the techniques of calculus in two and three variables, such as finding and analyzing critical points, and evaluating multiple integrals. More broadly, we will attempt to develop an underlying geometric intuition that will allow us to understand the problems on a qualitative (as well as quantitative) level. For the most part, our focus will be more on the practical than the theoretical such that we will not spend a lot of time on rigorous proofs of theorems. We will spend a bit of time discussing applications but will be more concerned with ensuring that we've developed the necessary mathematical toolkit to understand such problems whenever they are encountered outside of this course.

14. ME-131 Thermodynamics I (3-0-3)

Thermodynamics is an engineering science that is central to most mechanical engineering applications. This is the first course in Thermodynamics which provides an introduction to the thermodynamic concepts that will be required in the following courses and in professional applications. This course also provides a background for understanding the operation of energy systems such as engines and refrigerators etc.

15. ME-146 Engineering Drawing & Graphics/Auto CAD Lab (0-1-1)

This course introduces students to 2D Drawing and 3D Modelling. This course uses AutoCAD 2018, which is an industrial software, to design and create blueprints and 3-D models of objects that engineers want to build. Intricate models are designed and then a 2D print is generated. Students will learn about the 2D sketching, 3D modelling its assembly and drawings, surface modelling, material selection, material mapping, texture mapping and Geometric Dimensioning and Tolerancing.

16. ME-222 Engineering Dynamics (3-0-3)

Introduces students to the fundamentals of engineering dynamics, including rectilinear and curvilinear motion, translation, rotation, and plane motion; work, energy and power; and impulse and momentum. The basic principles of dynamics are applied to engineering problems. A brief introduction of kinetics of rigid body motion is presented.

17. ME-142 Workshop Technology II (0-1-1)

This course is mainly concerned with use and applications of machine tools in manufacturing engineering. The objective of this course is to familiarize the students thoroughly with the working capabilities and construction and operations of main machine tools. The most common machine tools in this course are the Lathe machine, Shaper machine and Milling machine. Proper selection of cutting speeds, feeds and depth of cut on all these machines is taught to the students. Tool's signature for various operations is also covered in this course. Students are required to make common project with the use of all above mentioned machine tools and about 15 Lab classes are reserved for these projects.

18. HU-112 Technical English (2-0-2)

This course is designed to enable the students to Learn usage of basic technical writing style, understand the use of formal and informal language according to the need of the audience and use graphics and page layout to illustrate technical or procedural information.

17. EE-206 Basic Electrical & Electronics Engineering (2-0-2)

The course introduces Electrical circuits and Electronic devices. Topics covered include introduction to Active and Passive Components, Voltage and current Sources (Independent and controlled), KVL and KCL, Norton Thevenin theorems, AC and DC characteristics of RL, RC and RLC circuits, Introduction to diodes, structure, properties, types and applications, Silicone controlled Rectifier (SCR), Introduction to BJTs, structure, properties, types and applications, Introduction to IGBTs, structure, properties, types and applications, Introduction to IGBTs, structure, properties, types and applications.

18. MA-106 Differential Equations (3-0-3)

The main purpose of this course is to prepare the students to apply ordinary differential equations to their respective branches of engineering. To illuminate the significance of differential equations, maximum emphasis is to be laid on their applications to physical sciences and engineering.

19. ME-223 Mechanics of Materials 1 (3-0-3)

Review of The Methods of Statics, Stresses in the Members of a Structure, Stress on an Oblique Plane Under Axial Loading, Stress Under General Loading Conditions; Components of Stress and Design Considerations An Introduction to Stress and Strain, Statically Indeterminate Problems, Problems Involving Temperature Changes, Poisson's Ratio, Multiaxial Loading: Generalized Hooke's Law, Dilatation and Bulk Modulus, Shearing Strain, Deformations Under Axial Loading—Relation Between E, u, and G, Stress-Strain Relationships For Fiber-Reinforced Composite Materials, Stress and Strain Distribution Under Axial Loading: Saint-Venant's Principle, Stress.

20. ME-233 Fluid Mechanics 1 (3-0-3)

This is the first course in Fluid Mechanics, which covers the fundamentals of fluid statics and dynamics. First the basic properties of fluids are introduced and then fluid statics are analyzed in detail. This part comprises of manometry, hydrostatic forces, buoyancy, floatation and stability. Bernoulli equation is derived and applied to a variety of problems. Subsequently fluid kinematics and dynamics are evaluated. Concept of velocity / acceleration field is introduced and applied to control volumes. Both differential and integral forms of conservation of mass, momentum and energy equations are derived and applied to fluid flow problems. Finally, basic potential flows are introduced and analysed for flowing fluids.

21. ME-234 Thermodynamics II (3-0-3)

Thermodynamics is an engineering science that is central to most mechanical engineering applications. This course provides an introduction to the thermodynamic concepts that will be required in following courses and in professional applications. The course provides a background for understanding how energy systems such as engines and refrigerators operate. Furthermore, it also gives an insight to the concepts of entropy that would be employed for investigating various power cycles. The course then introduces air standard power cycles including introduction to jet propulsion. The vapor power cycles in which the working fluid is alternately vaporized and condensed are then analysed. In the third part, the properties of atmospheric air (mixture of ideal gases and vapours) and air-conditioning processes are studied. Finally fuel combustion reactions for mass and energy balance are studied.

22. ME-226L Engineering Mechanics Lab (0-0-1)

This course deals with the demonstration of basic principles of engineering mechanics, namely, Engineering Statics and Engineering Dynamics. The emphasis will

be on the psychomotor and affective domain of learning. Within the psychomotor domain the student will be able to correctly identify the principles governing each experiment performed and within the affective domain students will understand report writing and teamwork.

23. ME-234L Thermodynamics Lab (0-0-1)

The course comprises of hands-on experience with instruments, specimens, recording and interpretation of data, and formal engineering report writing.

24. ME-248 Manufacturing Process 1 (1-0-1)

This coursework would cover the following: Introduction to manufacturing: Manufactured products, Material selection, Organization for manufacturing. Metal casting process and equipment: Sand casting, Shell mold casting, Investment casting, Vacuum casting, Die casting, Centrifugal casting, Inspection of castings. Forming and shaping processes and equipment: Flat rolling, Shape rolling, Production of seamless tubing and pipe. Sheet metal forming: Shearing, Bending sheet and plate, forming, Stretch forming, deep drawing. Powder Metallurgy: Production and compaction of metal powders, Sintering, Shaping of metal powder and ceramics materials, and applications of additive manufacturing.

25. ME-202 Health Safety and Environment (1-0-1)

This course introduces students to the study of workplace occupational health and safety. Students will be able to identify, prevent and solve problems associated with occupational health and safety in their daily lives. The course is designed to assist students in theimplementation of safe and healthy practices at home and at work.

26. ME-224 Mechanics of Materials -II (3-0-3)

To provide students with basic principles required for understanding the concepts of 2D / 3D transformation of stresses / strains and application of Mohr circle to calculate their transformed values. To enable students to calculate Principal Stresses in a beam to find out maximum / minimum stresses under various load conditions. It is also intended that students will be able to design solutions for beams and columns under various load conditions to determine resultant stresses and deflections. At the end of course students will also be able to comprehend concepts related to strain energy in loaded structures. It is also intended that students will be able to use subject matters in analyzing and solving real life problems as well as industrial structural problems.

27. ME-336 Fluid Mechanics -II (3-0-3)

The course is the continuation of the first course in the BE level study of fluid behaviour The course deals with the behaviour of fluid when subjected to practical common models. It is designed to attain knowledge of fluid (liquid and gases) behaviour in pipe/ducts, flow over bodies, open channel flows and compressible. The knowledge gained is also applied to compression, expansion and power devices. Students will also be required to solve a Complex Engineering Problem involving application of their gained engineering knowledge. This exercise focusses on problem analysis utilizing modern computation tools and fosters the student's ability to work as part of a team.

28. ME-325 Mechanics of Machines (3-0-3)

The course is aimed to help students to develop the ability to design and analyze of mechanisms and machine components pertaining to kinematics and kinetics. Course has been divided into two parts. Part I consists of modelling and analysis of mechanisms. Part II includes different components associated with machine theory for transmission components, gears, clutches etc. At the end of the course students will be able to connect design theory, computer simulations and actual performance through the construction and testing of working prototypes in the form of semester projects.

29. ME-224L Mechanics of Materials Lab (0-1-1)

This course deals with the demonstration of basic principles of Mechanics of Materials. Within this course, student will identify and measure experimentally the stresses, strains, displacements and material properties like elastic and shear moduli, material toughness and hardness and interrelating them to the strength of materials.

30. ME-247L Manufacturing Process Lab I (0-1-1)

This course introduces students to 3D Modelling, 3D Printing and CNC Lathe. This course uses Solidworks, which is an industrial software used to design and create blueprints and 3-D models of objects that engineers want to build. Intricate models are designed and then a 3D print is generated. It is used in a number of industries. Students will learn about the 2D sketching, 3D modelling its assembly and drawings, surface modeling, mold designing, sheet metal work, weldment and 3D printing and other add-ins. Fundamental (G and M code) practices and auto code generation using CAD/CAM software, used in industry are covered. Machine tool axis motion, methods of work piece setup, cutting tool, selection cutting tool compensation and cycles are reviewed. Students produce manually written part programs for two-axis lathe machines. Students will set-up and operate CNC lathes to make assigned parts and will submit a report.

31. MA-202 Numerical Analysis and Computation (2-1-3)

In this course our goal will be to explain the consequences of finite precision and the inherent limits of the numerical methods considered; select appropriate numerical methods to apply to various types of problems in engineering and science in consideration of the mathematical operations involved, accuracy requirements, and available computational resources; demonstrate the mathematical concepts underlying different numerical methods. We will mainly focus on the understanding and implementation of different numerical techniques for various problems in engineering.

32. HU-101 Communication Skills (3-0-3)

This course has been designed to help learners explore the fundamental elements, characteristics and processes of effective communication skills. The course reintroduces the four main language skills (reading, writing, speaking and listening) to learners with a practical and active approach of utilizing them for communication. Students learn to convey their ideas and exchange information in familiar and unfamiliar contexts confidently. It also includes learning to communicate in a multicultural society and a variety of contexts with an emphasis on oral presentation skills, public speaking, interpersonal and intrapersonal skills. The written communication skill at this stage concentrates on improving the foundation writing skills necessary for academic writing and basic research.

33. ME-343 manufacturing Process II (1-0-1)

This coursework would enable the students to analyze machining processes, their performance measures, and tooling and cutting parameters on the basis of knowledge of non-conventional machining and abrasive material removal processes to ensure machinability of extremely hard-to-cut materials and achievement of ultra-precision and high surface finish. This course will also cover manufacturing related accessories such as jigs & fixtures for work holding, metrology for precision measurements, and process planning for smooth flow of processes. In addition to this, the students will learn CAD/CAM/CIM, additive manufacturing and apply G-codes programming on CNC machine tools in the product development

34. MA-208 Engineering Probability and Statistics (3-0-3)

The objective of this course is to introduce the fundamental ideas of probability and descriptive statistics. This course is primarily meant to strengthen the knowledge of students about data, probability and random variables. Also, it is meant to enable the students to grasp abstract concepts by studying concrete examples from science and engineering. Its use is widespread in science, engineering, medicine, business, industry, and many other fields.

35. ME-327 Machine Design I (3-0-3)

This course would look to examine fundamentals of machine design, including analysis and design of mechanical components. The course covers, screw and fasteners, Design of non-permanent joints (Bolted Connection), Design of permanent Joints (welding and Adhesive Bonding), brakes, springs and others. The course also covers the topic of static and fatigue theories of failure in predicting life of components.

36. ME-312L Instrumentation and Measurements Lab (0-1-1)

To provide students with the fundamental understanding of the concept, principles, procedures and computations used by engineers and technologists to analyse, select, specify, design and maintain modern instrumentation and measurement systems and develop an appreciation of the various type of devices in common use in industry.

37. ME-343L Manufacturing Process Lab II (0-1-1)

This course introduces students to CNC Milling and programming. Fundamental (G and M code) practices and auto code generation using CAD/CAM software, used in industry are covered. Machine tool axis motion, methods of work piece setup, cutting tool, selection cutting tool compensation and cycles are reviewed. Students produce manually written part programs for three axis-milling Milling machines. Students will set-up and operate CNC milling machines to make assigned parts and will submit a report.

38. ME-313 Control Engineering (3-1-4)

Control systems engineering is an exciting field, which has assumed an exceedingly important role in all branches of engineering including mechanical, electrical, aerospace, chemical, and mechatronics engineering. This is a first course in control systems engineering and has been designed to familiarize the students with the fundamentals of the performance of a system in terms of its control parameters using state of the art techniques required for professional modeling and simulation of control systems

39. HU-304 Technical Report Writing (2-0-2)

This course focuses on developing understanding of Technical Report Writing usage in different situations and inculcating basic research skills by involving the students in task-based activities. Technical Writing intends at instilling basic research skills by involving the students in conducting research-based projects.

40. ME-201 Engineering Materials (3-0-3)

This course is designed to develop an understanding of both conventional and advanced materials being used in engineering applications. Course contents include; internal atomic structure, crystal structures and imperfections and how they dictate material properties, phase diagrams and their analysis, a review of Ferrous and non-Ferrous alloys and their properties, introduction to structure and properties of polymeric materials, ceramic & composite materials and degradation of materials. During the course, various relevant examples will be presented to reinforce the different concepts learnt. Also issues like materials selection, environmental and societal issues will be discussed throughout the length of the course. At the end of this course students should be well aware of the various types of materials that are available for design application, their properties and their limitations.

41. ME-336 Heat and Mass Transfer (3-0-3)

To provide students with basic principle required for understanding conducting, radiation and convection heat transfer. To enable students to apply the basic principles of heat transfer in the analysis and design of thermal systems. The students are intended to use the subject matters in analyzing and solving real life problems as well as industrial heat transfer problems.

42. ME-328 Machine Design II (2-0-2)

The course is continuation of Machine Design-I and is aimed to help the students to develop the ability to design and analyze machine components related to transmission components. The course consists of design of components like Gears, Gearings, Belt Drives, Chain drives and Brake/Clutch in depth.

43. ME-329 Mechanical Vibrations (3-0-3)

The course will cover fundamental concepts on the vibration of mechanical systems including, but not limited to, review of systems with one degree for freedom, Lagrange's equations of motion for multiple degree of freedom systems, introduction to matrix methods, transfer functions for harmonic response, impulse response, and step response, convolution integrals for response to arbitrary inputs, principle frequencies and modes, applications to critical speeds, measuring instruments, isolation, torsional systems, introduction to nonlinear problems.

44. ME-349 Computer Aided Engineering (2-1-3)

This course will essentially cover the basics of programming Finite Element Method (FEM) and Computational Fluid Dynamics (CFD) with applications to mechanical engineering. The development and usage of computer software is an essential part of the course to get a hands-on practice of computer software. Standard software related to CAE and Computer Aided Design (CAD) make an essential part of the course.

45. ME-329L Mechanical Vibrations Lab (0-1-1)

This course deals with the demonstration of basic principles of mechanical vibrations with concentration on single and two degree of freedom systems. The emphasis is on the psychomotor and affective domains of learning. Within the psychomotor domain the student performs experiments to measure time periods, natural frequencies, damped frequencies using logarithmic decrement of damped system and the critical speeds of whirling shafts. While within the affective domain students files the results, while comparing them with theory, in the form of technical report and learn to work with team as well as performing experiments individually.

46. ME-336L Heat and Mass Transfer Lab (0-1-1)

This course enables the students to understand the basic principles of Heat and Mass Transfer. Three modes of heat transfer i-e Conduction, Convection and Radiation is explained and the effect of various parameters on heat transfer are investigated. Different type of Heat exchangers is studied and their efficiencies are compared. The effect of drop and film wise condensation and the effect of surface finish on heat transfer is being investigated.

47. ME-450 Engineering Management & Entrepreneurship (3-0-3)

In this course, important concepts in relation to both Engineering Management & Entrepreneurship are taught. The management module covers concepts essentials for making improvements in day-by-day engineering activities. The entrepreneurship module, on the other hand, deals with understanding, analyzing and evaluating the Business ideas with knowledge of Entrepreneurial Strategies and intentions.

48. ME-436 Refrigeration & Air-conditioning (3-0-3)

To prepare students for efficient design and operation of air-conditioning & refrigeration systems. Students will be able to advise architectural, building services, HVAC equipment manufacturing, food processing, sales and marketing branch of trade and industry.

49. ME-461 IC Engines (3-0-3)

Internal combustion engines have been, and will remain for the foreseeable future, a vital and active area of engineering education and research. Internal combustion engines and the industries that develop and manufacture them and support their use, now play a dominant role in the fields of power, propulsion, and energy. This course is intended to cover this vast and fast growing field in accordance with the curriculum for a bachelor's degree in mechanical engineering. It provides the material needed for a basic understanding of the operation of internal combustion engines. Students are assumed to have knowledge of fundamental thermodynamics, heat transfer and fluid mechanics as a prerequisite to get maximum benefit from this course.

50. ME-463L IC Engine and Powerplant Lab (0-1-1)

This course deals with the demonstration of basic and applied principles of IC Engine and Powerplant Technologies. It provides practice of handling IC Engines and Powerplant equipment; measuring the performance parameters. In this course the emphasis will be on psychomotor and affective domain of learning. Within the psychomotor domain, the student will be able to gain basic understanding of the operation of internal combustion engines as well as powerplant technologies. While within the affective domain students will understand report writing and teamwork.

51. ME-462 Powerplant Engineering (3-0-3)

With the turnaround in the energy picture and need for new solutions to efficient power generation problems, this course on power plants is integral to studying mechanical engineering. The course introduces forms of energy, oil, gas and coal, combustion processes, energy cycles, steam generators and their component design, turbo machinery, load curves and power plant economics. Detailed economic analysis is also covered in the form of LCOE, NPV, specific/variable costs for both, conventional and non-conventional power plants.

52. ME-325L Mechanics of Machines Lab (0-1-1)

This course deals with the demonstration of basic and applied principles of mechanics of machine, with the emphasis on the psychomotor and affective domain of learning. Within the psychomotor domain the student learns to perform experimentally the kinematic, kinetic, dynamics and static analysis of machine parts in relative motion. While within the affective domain students will understand report writing and working individually as well as in a team effectively.

53. ME-452 Total Quality Management (2-0-2)

This course begins with basic concept of quality, evolution of quality with respect to various dimensions of quality, quality Gurus and their theories. The quality management principles, key statistical distribution and other statistical tools related with statistical process control (SPC) are introduced. Quality assurance, reliability, total quality management (TQM), ISO 9000: 2015 and quality management system (QMS) are discussed. The role of quality management principles and other processes of TQM in manufacturing industry is covered. Some basic quality tools, and their applications to control the variations from manufacturing point of view is discussed. Emphasis is placed on the use of control charts for variables and attributes along with six sigma concept. Type 1, Types 11 errors and key process capability indices along with operating characteristic curve for the control of variation are covered in detail. Importance of acceptance sampling and various sampling strategies using military standards along-with their operating characteristic curves are

discussed. Finally, reliability and its application in series, parallel and mixed systems is covered and their relationship with failure rates is established.

54. EE-300L Total Quality Management (2-0-2)

To introduce Non-Electrical Engineering student to those aspects of Electrical Machines that are likely to be most relevant to his or her professional career, and the integration of electrical, electronic, and software engineering into their domain.

55. <u>EE-300L Total Quality Management (0-1-1)</u>

This lab is meant to demonstrate fundamentals of electrical machines through practical applications. Starting from Faradays Law, production of induced force on a wire, induced voltage on a conductor moving in a magnetic field, transformers, the equivalent circuit of a transformer, AC machinery fundamentals, synchronous generators and motors, induction motors, DC machinery fundamentals, DC motors and generators, special purpose motors.

56. <u>HU-219 Chinese Language (3-0-3)</u>

To develop basics of Chinese language as making a general understanding of sentence structure, learning basic Chinese vocabulary used in daily life. This course consists of 2 parts listening and speaking, making the listening power strong to understand the Chinese language and speaking skills.

57. FL-404 German Language (3-0-3)

To develop basics of German language as making a general understanding of sentence structure, learning basic German vocabulary used in daily life. This course consists of 4 parts listening, speaking, reading & making the listening power strong to understand the German language and speaking skills. Understand and use familiar, everyday expressions and very simple sentences, which relate to satisfying of concrete needs. Introduction of him/her and others as well as ask others about themselves