Mechatronics 3

| Basic Course Information | | | | | |
|--------------------------|------------------|--------------------------------------|----------------|--|--|
| Course Number | 01005112 | Subject Category | Compulsory (M) | | |
| Clase Format | Lecture | Credit Type and Number of Credits | 2 | | |
| Department | Mechatronics | Student Category | Year 4 | | |
| Period of Study | Semester 1 | Classes per Week | 4 | | |
| Required Materials | | | | | |
| Instructor | Sompod Wongkhead | Kashine Takeshi | | | |

Course Objective

The course provides budents with introduction and basic knowledge of mechatronics. Topics covered in this course extractor in July 2CO and AC motors, the applications of these materials are also taught. The exercise and homework are assigned to help and develop student's understanding.

| Evaluation (Rubrio) | Ideal Level of Achievement (Very Good) | Standard Level of Achievement (Good) | Unacceptable Level of Achievement (Fail) | |
|--|---|--|--|--|
| Understanding definition of actuator, can explain to realize designable motion | Ability to solve not only basic problems but also applied problems on midtern and/or final exams about this category. | You can solve assignments correctly about this category and submit them by the deadline. | Cannot understand definition of actuator, cannot explain to realize designable motion | |
| Can explain principle and property for AC/DC motors | Ablity to solve not only basic problems but also applied problems on midterm and/or final exams about this category. | You can solve assignments correctly about this category and submit them by the deadline. | Cannot explain principle and property for AC/DC motors | |
| Can explain how to control AC/DC motors | Ability to solve not only basic problems but also applied problems on midterm and/or final exams about this category. | You can solve assignments correctly about this category and submit them bythe deadline. | Cannot explain how to control AC/DC motors | |

Relationship with Learning Cutomee M(2) Ability to deelan, process and develop electrical and electronic systems for robotics/ mechatronic systems Please change Please change

Teaching Method
Outline: Power source for mechatronics, and we learn them principle and property. In addition, it is provided learning selection of suitable motions, marker element, several mile control and control and control and Exercise.

Lacture and Exercise

All materials will be posted on the Google classroom. Class Format: Please Note :

| Guidance, Definition of actuator, Example of of DC moder, Function of trush and commutator of DC moder, Community of DC moder, Septemmore, Characteristic Septemmore, DC moder, DC m | | | | 1 | | |
|--|----------------------------------|---|---|---------------------|--|--|
| State week Control February | Semester 1 | Contents and Method of Course | Goals | Related MCC | | |
| Schole of CP motion and its incomplise it is accounted and control work control of the state of | | | | V-C 5 6 | | |
| Schole of CP motion and its incomplise it is accounted and control work control of the state of | describe. | Guidance, Definition of actuator, Example of | Understanding definition of | | | |
| Schole of CP motion and its incomplise it is accounted and control work control of the state of | 1St Week | of DC motor, Function of brush and commutator | realize designable motion | | | |
| Scales of DC motor and its properties 8: No load properties of Control and Scales of DC motor and its properties 8: No load properties of control and | | | | | | |
| Scales of DC motor and its properties 8: No load properties of Control and Scales of DC motor and its properties 8: No load properties of control and | | | | V-C 5 6 | | |
| Scales of DC motor and its properties 8: No load property is a control and control. Should control of control and control should control of control and control should be control. Should control of control and control of control and control of control and control of control | | Sciples of DC motor and its properties (I): Separately | | | | |
| Scales of DC motor and its properties 8: No load property is a control and control. Should control of control and control should control of control and control should be control. Should control of control and control of control and control of control and control of control | 2nd week | excited motor. Shunt motor. Series motor, | Can explain advantages of | | | |
| Scales of DC motor and its properties 8: No load property is a control and control. Should control of control and control should control of control and control should be control. Should control of control and control of control and control of control and control of control | | compound motor, Differential | various LC motor | | | |
| Afth week Control methods of DC motor. Current control and Can explain how to control the startingua, PMM control Brushless DC motor Difference with housh DC motor. Active research of deathershape. Brushless DC motor Difference with housh DC motor. Active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of the control of the | | | | | | |
| Afth week Control methods of DC motor. Current control and Can explain how to control the startingua, PMM control Brushless DC motor Difference with housh DC motor. Active research of deathershape. Brushless DC motor Difference with housh DC motor. Active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of the control of the | | | | V-C 5 6 | | |
| Afth week Control methods of DC motor. Current control and Can explain how to control the startingua, PMM control Brushless DC motor Difference with housh DC motor. Active research of deathershape. Brushless DC motor Difference with housh DC motor. Active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of the control of the | | Sciples of DC motor and its properties (III: No load | | | | |
| Attributed Control methods of DC motor: Current control and Consequent motor to control bit services, PMM control Bhashless DC motor: Difference with huarb DC motor. Active frequent of services and describer frequent of the motor. Active frequent of services and describer frequent of the motor. Active frequent of describer frequent of the motor. Active frequent of services and describer frequent of the motor. Active frequent of services for DC motor. This week. Perform calculation of properties for DC motor. Trial examination. White responsibility of the half of semester flewbew. Methor Examination. Attributed to the half of semester flewbew. Beth week. Methor Examination. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew. Beth week. Attributed to the half of semester flewbew. Attributed to the half of semester flewbew | 3rd week | property, Load property, Speed control Helationship | Can explain advantages of | | | |
| Afth week Control methods of DC motor. Current control and Can explain how to control the startingua, PMM control Brushless DC motor Difference with housh DC motor. Active research of deathershape. Brushless DC motor Difference with housh DC motor. Active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of deathershape. Girl week Froemasted study for actuations 8 Can explain about active research of the control of the | | counterplan | Val Kus DO 11010 | | | |
| Brushless DC motor. Difference with bush to motor. An action of persons of the hardware DC motor. Agriculture and describerables and describerables and describerables and describerables. Considerable and describerables Considerable Considerable and describerables Considerable and describerables Considerable and describerables Considerable and describerables Considerable and describerable an | | | | | | |
| Brushless DC motor. Difference with bush 10 motor. April member and checkers with a control of the checkers with a control of the checkers. April member and checkers with the checkers with a control of the checkers. April member and properties for DC motor. Trial examination. Brit week. Without a fait for sensetor Review. Without a fait for sensetor Review. Without a fait for sensetor Review. Brit week. Micham Examination. Final examination. Can explain the difference of and examination and examination. Final examination. Final examination. Can explain facture of the checkers and examination and examination. Final examination. Final examination. Final examination. Can explain action and examination and examination. Final examination. Can explain action and examination. Final examination. | | | | V-C 5 6 | | |
| Brushless DC motor. Difference with bush 10 motor. April member and checkers with a control of the checkers with a control of the checkers. April member and checkers with the checkers with a control of the checkers. April member and properties for DC motor. Trial examination. Brit week. Without a fait for sensetor Review. Without a fait for sensetor Review. Without a fait for sensetor Review. Brit week. Micham Examination. Final examination. Can explain the difference of and examination and examination. Final examination. Final examination. Can explain facture of the checkers and examination and examination. Final examination. Final examination. Final examination. Can explain action and examination and examination. Final examination. Can explain action and examination. Final examination. | | Control methods of DC motor: Current control and | Can auntain how to control | | | |
| Brushless DC motor. Difference with bush 10 motor. April member and checkers with a control of the checkers with a control of the checkers. April member and checkers with the checkers with a control of the checkers. April member and properties for DC motor. Trial examination. Brit week. Without a fait for sensetor Review. Without a fait for sensetor Review. Without a fait for sensetor Review. Brit week. Micham Examination. Final examination. Can explain the difference of and examination and examination. Final examination. Final examination. Can explain facture of the checkers and examination and examination. Final examination. Final examination. Final examination. Can explain action and examination and examination. Final examination. Can explain action and examination. Final examination. | 4th week | its technique. PWM control | DC motor | | | |
| Brillian short Brillian Br | | | | | | |
| Brillian short Brillian Br | | | | | | |
| Better week Properties of surphress and Feedback Perform calculation of properties for DC motor Trial examination | | | Con contractor at an a | V-C 5 6 | | |
| Better week Properties of surphress and Feedback Perform calculation of properties for DC motor Trial examination | | Brushless DC motor: Difference with brush DC | advantage and | | | |
| Better week Properties of surphress and Feedback Perform calculation of properties for DC motor Trial examination | 5th week | motor, function of sensor in brushless DC motor, Advantages and disadvantages | configuration of brushless | | | |
| Perform calculation of properties for DC motor | | Action reages on its closured reages | DC motorn | | | |
| Perform calculation of properties for DC motor | | | | V 0 F 0 | | |
| Perform calculation of properties for DC motor | | | | V~ 5 6 | | |
| Perform calculation of properties for DC motor | | | Can design an actuator to | | | |
| Bith week What-up of 1st half of semester (Review) Midderm Exemination Plantum Midderm Exemination Basic concept of AC motor Industrial market field procept of Ac motor Industrial market field for receipt field instruct of a consent of a mid-up on the procept of a mid-up on the | otn week | miegrated study for actuators (I) | satisfy the specification | | | |
| Bith week What-up of 1st half of semester (Review) Midderm Exemination Plantum Midderm Exemination Basic concept of AC motor Industrial market field procept of Ac motor Industrial market field for receipt field instruct of a consent of a mid-up on the procept of a mid-up on the | | | 1 | | | |
| Bith week What-up of 1st half of semester (Review) Midderm Exemination Plantum Midderm Exemination Basic concept of AC motor Industrial market field procept of Ac motor Industrial market field for receipt field instruct of a consent of a mid-up on the procept of a mid-up on the | | | | V-C 5 6 | | |
| Bith week What-up of 1st half of semester (Review) Midderm Exemination Plantum Midderm Exemination Basic concept of AC motor Industrial market field procept of Ac motor Industrial market field for receipt field instruct of a consent of a mid-up on the procept of a mid-up on the | | | 1 | | | |
| Bith week What-up of 1st half of semester (Review) Midderm Exemination Plantum Midderm Exemination Basic concept of AC motor Industrial market field procept of Ac motor Industrial market field for receipt field instruct of a consent of a mid-up on the procept of a mid-up on the | 7th wook | Perform calculation of properties for DC motor | Trial evamination | | | |
| Strit week Metherm Evenimation | 7 (F) Welek | Perform calculation of properties for DC motor | That examination | | | |
| Strit week Metherm Evenimation | | | | | | |
| Strit week Metherm Evenimation | | | | | | |
| Strit week Metherm Evenimation | | | | | | |
| Strit week Metherm Evenimation | 9th work | Wrong in of 1st holf of competer (Parious) | Review and summarize | | | |
| 10th week | COT WORK | Wild Op of Tat Hall of selflester steview | learning | | | |
| 10th week | | | | | | |
| 10th week | | | | | | |
| 10th week | | | | | | |
| 10th week | 9th wook | Midterm Evamination | | | | |
| Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Broadfast of 3-shale industion motor Load protects. But of leaves from a cream of a sunder more and sunder more and sunder more and sunder receive and sunde | 00111001 | 111000111 (2-0011 00001 | | | | |
| Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Broadfast of 3-shale industion motor Load protects. But of leaves from a cream of a sunder more and sunder more and sunder more and sunder receive and sunde | | | | | | |
| Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Broadfast of 3-shale industion motor Load protects. But of leaves from a cream of a sunder more and sunder more and sunder more and sunder receive and sunde | | | | | | |
| Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Broadfast of 3-shale industion motor Load protects. But of leaves from a cream of a sunder more and sunder more and sunder more and sunder receive and sunde | | | | | | |
| Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Basic oncess of AC moor Probation more and sunder receive field. Broadfast of 3-shale industion motor Load protects. But of leaves from a cream of a sunder more and sunder more and sunder more and sunder receive and sunde | 1Oth work | Bot un Midter Europ Donor and Ecodook | Dougous looming | | | |
| Basic concept of AC motor industrion more and an entering the difference in-disconnorm control industrial manages field. 12th week Properties of synthesis Hustrion motor Load property. Sits and second, Tonaus concept to a first industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits indust | TOUTWEEK | TRICHT MACRITIC EXAMIT REPORTS OF ICT FROCEDOCK | 1 10 7 10 7 10 10 1 10 10 | | | |
| Basic concept of AC motor industrion more and an entering the difference in-disconnorm control industrial manages field. 12th week Properties of synthesis Hustrion motor Load property. Sits and second, Tonaus concept to a first industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits indust | | | | | | |
| Basic concept of AC motor industrion more and an entering the difference in-disconnorm control industrial manages field. 12th week Properties of synthesis Hustrion motor Load property. Sits and second, Tonaus concept to a first industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial sits industrial. Sits industrial sits indust | | | | V-C 5 6 | | |
| 12th week Properties of syrhese haluction motor Load property. Sits and seeds. Torous property etc. 13th week Properties of syrhese haluction motor Load property. Torous property. Should seed to syrhese haluction motor and sits property and sits of seeds and seeds | | | | | | |
| 12th week Properties of syrhese haluction motor Load property. Sits and seeds. Torous property etc. 13th week Properties of syrhese haluction motor Load property. Torous property. Should seed to syrhese haluction motor and sits property and sits of seeds and seeds | 11th week | synchronous motor): Botating magnetic field. | induction motor with | | | |
| 12th week Properties of synthesis reluction motor Load contents of the content | | construction | synchronous motor | | | |
| 12th week Properties of synthesis reluction motor Load contents of the content | | | | | | |
| 13th week Properties of send-incode motor Load property 12th week Properties of send-incode motor Load property 14th week Properties of send-incode motor Load property 14th week Concept of PD control and application 15th week Concept of PD control and application 15th week Surface motor and Send-incoder for send-incoder | | | | V-C 5 6 | | |
| 13th week Properties of send-tronous motor Load anoparts Cun seekin feature of V C S | | | Can applyin facts an of 2- | | | |
| 13th week Properties of annihinonous motor Load accepts, for explain feature of surfavorous motor Load accepts, for explain feature of surfavorous motor and is surfavorous motor and in surfavorous | 12th week | Properties of 3-phase Induction motor: Load | phase induction motor and | | | |
| 13th week Properties of anthronous motor Load accounts and a control of Torsus expenses. Acadestern etc. 14th week Connect of PD control and application Connect of PD control and application. Connection PD control and application. Connection PD control V.A. 8. 1 15th week Surbo motor and Steppins motor Control method. excooler for serve motor. Applications. Surbo motor and Steppins motor Control method. excooler for serve motor. Applications. 15th week Integrated study for actuators (II Connection and applications in other and applications). Integrated study for actuators (II Connection and applications in other and applications). In the position of the control of t | | property, one and assets, rungue property etc. | its property | | | |
| 13th week Properties of partitionous report Load poperty. Torque enterty. Application etc. 14th week Concept of PD control and application Concept of PD control and September (PD control methods) Surbo motor and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control methods) Concept of PD control and September (PD control an | | | | | | |
| 13th week Conset of PID control and accideation etc. Connect of PID control and accideation Can explain PID control 14th week Connect of PID control and accideation Can explain PID control V.C. 7. V.C. 8. Can explain action and connect and secretary accideation Can explain PID control V.C. 7. Can explain action and connect and secretary accideations Con explain action and connect accideation. Can explain action and connect accideation. Can explain action and connection accideation. V.C. 7. Can explain action and connection accideation. V.C. 7. Can disciplin an action and connection accideation accideation. V.C. 5. Can disciplin an activator with secret accideation. V.C. 5. Trial examination. 18th week Perform calculation of properties for AC motor 18th week Passes before the final examination. Esclaiming the past work. | | | | V-C 5 6 | | |
| 15th week Consect of PD control and asolication Can explain PD control V C 7 V | | | Can explain feature of | | | |
| 14th week Concert of PD control and aceleation Can explain PD control V.C. 7 V.C. 9 V.C. 7 V.C. 9 V.C. 7 V.C. 9 V.C. 7 V.C. 7 V.C. 7 V.C. 9 V.C. 9 V.C. 9 V.C. 7 V.C. 9 V.C. | 13th week | Toroug property Application etc. | synchronous motor and its | | | |
| 14th week Concept of PD control and application Can equilar PD control V ⊂ 7 15th week Surbo motor and Sespense motor Control method. Surbo motor and Sespense motor Control method. Concept and on the process of the service motor with the se | | 101 000 11 000 01 1 010 000 01 000 | property | | | |
| 14th week Concept of PD control and acadestion Can equilar PD control V ⊂ 7 15th week Surbo-motor and Sessons motor Control method. Surbo-motor and Sessons motor Control method. Can equilar netics and or 2 to 2 | | | | | | |
| 14th week Concept of PD control and acadestion Can equilar PD control V ⊂ 7 15th week Surbo-motor and Sessons motor Control method. Surbo-motor and Sessons motor Control method. Can equilar netics and or 2 to 2 | | | | V-C 7 9 V-A 8 17 | | |
| 15th week Surbo notor and Stephin motor. Control method. Surbo notor and Stephin motor. Control method. Can explain action and surbor and stephin motor or activator with several topic motor and stephin motor. The surbor of the several motor or activator with several topic motor or activator with | | | 1 | v-A 8 1 | | |
| 15th week Surba motor and Season's motor. Control methods action and service of service methods accorded for service methods. Applications 15th week Integrated study for actuators IB Con deligen an actuator velocities and service of service methods. The service of service of service methods and service of service methods and service of service methods and service of ser | 14th week | Concept of PID control and application | Can explain PID control | —— | | |
| 15th week Surbor motor and becamin motor. Control methods and control motor and secondar for service motor. Applications 15th week Perform calculation of properties for AC motor 17th week Perform calculation of properties for AC motor Trial examination 18th week Review before the final examination Epilaining the past work. | | | 1 | | | |
| 15th week Surbor motor and becamin motor. Control methods and control motor and secondar for service motor. Acadestores 15th week Perform calculation of properties for AC motor 17th week Perform calculation of properties for AC motor Trial examination 18th week Review before the final examination Escharing the past work. | | | | | | |
| 16th week Integrated study for actuators III Can design an actuator with second actuators III Can design an actuator with second actual to III Can design an actuator with second actual III III Can design and actuator with second actual III III III III III III III III III I | | | | V-C 7 9 | | |
| 16th week Integrated study for actuators III Can design an actuator with second actuators III Can design an actuator with second actual to III Can design an actuator with second actual III III Can design and actuator with second actual III III III III III III III III III I | | (| Can explain action and | - | | |
| 16th week Integrated study for actuators III Can design an actuator with second actuators III Can design an actuator with second actual to III Can design an actuator with second actual III III Can design and actuator with second actual III III III III III III III III III I | | | | | | |
| 16th week Integrated study for actuators (III Can design an actuator with service to satisfy the sociologists). 17th week Perform calculation of properties for AC motor Trial examination 18th week Pewsey before the final examination Exclaiming the past work. | 15th week | Surbo motor and Stepping motor: Control method. encoder for servo motor. Applications | principle for surbo motor | | | |
| 16th week Integrated study for actuators (III Can design an actuator with service to satisfy the sociologists). 17th week Perform calculation of properties for AC motor Trial examination 18th week Pewsey before the final examination Exclaiming the past work. | 15th week | Surbo motor and Stepping motor: Control method. encoder for servo motor. Applications | principle for surbo motor and stepping motor | | | |
| 17th week Perform calculation of properties for AC motor Trial evenination 18th week Review before the final evenination Excitaining the past work 18th week Final Evenination | 15th week | Surbo motor and Stepping motor: Control method. encoder for servo motor, Applications | principle for surbo motor and stepping motor | | | |
| 17th week Perform calculation of properties for AC motor Trial evenination 18th week Review before the final evenination Excitaining the past work 18th week Final Evenination | 15th week | Surbo motor and Stepping motor: Control method. encoder for servo motor. Applications | | V-C 5 6 | | |
| 17th week Perform calculation of properties for AC motor Trial exemination 18th week Review before the final exemination Excitaining the past work 18th week Final Exemination | | | | V-C 5 6 | | |
| 18th week Peveu before the final examination Euclaining the past work 19th week Final Examination | | | | V-C 5 6 | | |
| 18th week Peveu before the final examination Euclaining the past work 19th week Final Examination | | | | V-C 5 6 | | |
| 18th week Peveu before the final examination Euclaining the past work 19th week Final Examination | | | | V-C 5 6 | | |
| 18th week Peveu before the final examination Euclaining the past work 19th week Final Examination | | | | V-C 5 6 | | |
| 19th week Final Eleanimation | 16th week | Integrated study for actuators (II) | Can design an actuator with sensor to satisfy the specification | V-C 5 6 | | |
| 19th week Final Examination | 16th week | Integrated study for actuators (II) | Can design an actuator with sensor to satisfy the specification | V-C 5 6 | | |
| 19th week Final Examination | 16th week | Integrated study for actuators (II) | Can design an actuator with sensor to satisfy the specification | V-C 5 6 | | |
| 19th week Final Examination | 16th week | Integrated study for actuators (II) | Can design an actuator with sensor to satisfy the specification | V-C 5 6 | | |
| 19th week Final Examination | 16th week | Integrated study for actuators (II) | Can design an actuator with sensor to satisfy the specification | V-C 5 6 | | |
| | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| 20th week Return Even Passers and Feedback, and special Review and summarise sensitives | 16th veelk 17th veelk 18th veelk | Integrated study for actuators III Perform calculation of properties for AC motor Per/ew before the final examination | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| 20th week Platurn Evan Placers and Feedback, and special Review and aummarize seasons | 16th veelk 17th veelk 18th veelk | Integrated study for actuators III Perform calculation of properties for AC motor Per/ew before the final examination | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| 20th week Peturn Exem Papers and Feedback, and social Review and summarize sessions | 16th veelk 17th veelk 18th veelk | Integrated study for actuators III Perform calculation of properties for AC motor Per/ew before the final examination | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| 20th week Peturn Exem Papers and Feedback, and special Review and summarize sensions | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor Per/ew before the final examination | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| 20th week Heturn Exam Papers and Featback, and special Hewew and summarize learning | 16th week 17th week | Integrated study for actuators III Perform calculation of properties for AC motor Per/ew before the final examination | Can design an actuator with service to satisfy the specification Trial examination | V-C 5 6 | | |
| | 16th week 17th week 18th week | Integrated study for actuators IB Perform calculation of properties for AC motor Review before the final examination Final Examination | Can design an actuator with service to satisfy the service to satisfy the second continuous and the second continuo | V-C 5 6 | | |
| | 16th veek 17th veek 18th veek | Integrated study for actuators IB Perform calculation of properties for AC motor Review before the final examination Final Examination | Can design an actuator with service to satisfy the service to satisfy the second continuous and the second continuo | V-C 5 6 | | |
| | 16th veek 17th veek 18th veek | Integrated study for actuators IB Perform calculation of properties for AC motor Review before the final examination Final Examination | Can design an actuator with service to satisfy the service to satisfy the second continuous and the second continuo | V-C 5 6 | | |
| | 16th veek 17th veek 18th veek | Integrated study for actuators IB Perform calculation of properties for AC motor Review before the final examination Final Examination | Can design an actuator with service to satisfy the service to satisfy the second continuous and the second continuo | VC 5 (| | |

| | | | | | | 00.100 |
|-------------------|-------------|------|-------------------------------------|--------|-----------|--------|
| | Examination | Qutz | Mutual Evaluations between students | Report | Portfolio | Other |
| Basic Ability | 70 | 30 | | | | |
| Technical Ability | | | | | | |
| | | | | | | |