ألية تنفيذ واعتماد التدريب الميدانى خارج الكلية ببرامج الساعات المعتمدة في حالة توفيره بواسطة الطالب

بناءً على اللائحة الداخلية لبرامج الساعات المعتمدة فيما يخص التدريب الميدانى والذى ينص على إشراف الكلية على البرنامج التدريبى فإن آلية التنفيذ والاعتماد للتدريب الميدانى كما يلى:

- يتقدم الطالب بخطة تدريب (ويفضل أن تكون معتمدة من الجهة المدربة) في موعد أقصاه 15 مايو تشمل الأتي:
  - البرنامج التفصيلي للتدريب
  - الخطة الزمنية للتدريب
  - المهارات المكتسبة
  - عدد ساعات التدريب وعدد الأسابيع
  - مسئول الاتصال
- يتم اعتماد البرنامج التدريبي من خلال المشرف الأكاديمى لكل طالب وفقا لمتطلبات كل مستوى دراسي للطالب وتخصصه في موعد أقصاه 30 مايو.
- تتم زيارات دورية الإشراف الدوري من قبل المشرف الأكاديمى على الطالب أثناء التدريب الميداني.
- ملء استمارة التقييم من قبل الطالب وتقديمها إلى المشرف الأكاديمى فى نهاية التدريب.
- تقديم تقرير فنى من الطالب إلى المشرف الأكاديمى فى نهاية فترة التدريب.
- ملء استمارة تقييم تدريب الطالب من قبل الشركة وموافاة المشرف الأكاديمى بها فى نهاية فترة التدريب.
- يتم اعتماد التدريب الميداني وفقا لإستيفاء النقاط سالفة الذكر.
- لن يتم السماح بالتدريب خارج مصر إلا من خلال مجموعات من الطلاب تحت إشراف أعضاء هيئة التدريس بالكلية بالتنسيق مع إدارة البرامج.

ملحوظة هامة

إذا أخل الطالب بأى بند من البنود المذكورة أعلاه فسوف يعتبر راسب في التدريب الميداني خلال هذة الفترة.

Summer Training Plan for BLDG Students

According to the BLDG study plan and the BLDG bylaws, the recommended practical training areas for each student level to be a hands-on training to learn about the latest implementation methods of the design and building constructions until the student meets the requirements of the job market after graduation.

Sophomore Level

1. Training courses on engineering graphics programs (AutoCAD)

2. Training on the tests required to satisfy the validity of the construction materials (Steel Reinforcement, types of bricks, stones... etc.)

3. Visiting to the sites to show types of structures and types of materials used in construction

Practical training is aimed to:

- Get introduced to the usage of needed CAD tools
- Enhance ability to select materials used in design and construction.
- Enhancing engineering management and marketing skills

Pre-Junior Level

1. Training on the Surveying works, Grid leveling, Contour lines, Topographic maps and volume computations and earth ...
2. Training in the design of concrete admixtures and tests the validity of concrete components (cement, small aggregates, large aggregates, additives, mixing water.... etc.) and quality control.
3. Training in the field as site supervision.

Practical training is aimed to:

- Get introduced to the phases of surveying works.
- Enhance ability to select materials of concrete admixtures.
- Enhance the capability of quality control.
- Enhancing project management skills

Junior Level

1. Training on the computer Software programs used in the designs field.

2. Training on the design, construction methods and project management.

Practical training is aimed to:

- Enhance hands on skills and knowledge of design, construction methods.
- Enhancing Employability skills.

– Summer Training Plan for MATL Students

The recommended practical training areas and development programs that suit the MATL study plan and bylaws, are listed in the following categorized topics:

Sophomore Level

- Get introduced to the usage of needed CAD tools
- Boost Programming Skills
- Get introduced to the flows of ideation & innovation
- Enhance the notion of being part of a maker community
- Enhance the capability of reverse engineering parts
- Enhance team building skills, self-confidence, and working in an interdisciplinary field
- Enhance business and marketing skills

Pre-Junior Level

- Get introduced to the phases of Product Design
- Enhanced knowledge of manufacturing processes
- Enhance ability to select materials for design and construction.
- Enhancing project management skills
- Get more involved in innovation & Entrepreneurship

Junior Level

- Enhance hands on skills and knowledge of advanced processes
- Enhancing Employability skills
- Integrating knowledge acquired so far in designing and implementing real products related to actual companies through on-university campus or preferably on-company campus internships.

Summer Training Plan for COMM Students

The recommended practical training areas and development programs suit the COMM study plan and bylaws, are listed in the following for each level:

Sophomore Level

- *Communications Electronics* (MATLAB, PCB from design to fabrication using OrCAD, PCB from design to fabrication using Expedition, Computer Aided Design of Electronic Circuits (OrCAD), Embedded Systems Design …..)
- *E-Learning Internet-Based* (Telecommunications Policies and Regulation, Principles of IP Telephony (VoIP)).
- *Switching Systems and Technologies* (IP Telephony/VoIP Implementation, Private Automatic Branch Exchange (PABX))

Pre-Junior Level

- *Switching Systems and Technologies* (Next Generation Networks (NGN), New Trends in Switching Technologies, IP Telephony/VoIP Implementation, Private Automatic Branch Exchange (PABX)).
- *Mobile Communications* (GSM Systems and Networks, General Packet Radio System (GPRS))
- *Data Communications* (Data Communication Basics, Understanding TCP/IP, Internetworking Techniques and Protocols).
- *Communications Electronics* (Digital Systems Design using FPGA, Computer Aided Design of Electronic Circuits (OrCAD), Fundamentals of Embedded Systems Design,).
- *Computers and Information Technology* (E-Learning from Concept to Delivery, Linux Fundamental & Administration, Web Design using PHP).
- *Cisco Systems* (Cisco Certified Network Associate (CCNA)).

Junior Level

- *Transmission Systems* (Wireless Communication Systems, Optical Communication Systems, Satellite Communication VSAT System, Synchronous Digital Hierarchy (SDH) Networks).
- *Switching Systems and Technologies* (Next Generation Networks (NGN), Session Initiation Protocol (SIP) Fundamentals, IP Networking and Internetworking , New Trends in Switching Technologies, IP Telephony/VoIP Implementation, Private Automatic Branch Exchange (PABX)).
- *Mobile Communications* (GSM Systems and Networks, General Packet Radio System (GPRS), CDMA Networks, 3G and Beyond)
- *Data Communications* (Understanding TCP/IP, Internetworking Techniques and Protocols, Understanding IP Networking VPNs, Network Security).
- *Wireless Networks* (Wireless Network Planning, WiMAX Networks, Emerging Wireless Technologies, LTE Networks, Wireless LAN Design and Implementation)

- *Communications Electronics* (VLSI Digital Systems Design using FPGA, Advanced FPGA Implementation, Embedded Systems Design, Machine-to-Machine (M2M) Communication Over GPRS Networks, Wireless Sensor Network, VHDL Foundation Course, Communication Electronics Analog/Mixed IC Design).
- *Computers and Information Technology* (Image and Video Processing: Analysis & Applications).
- *Cisco Systems* (Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP), CCNA Security (Cisco Certified Network Associate Security), Quality of Service (QOS)).
- *Juniper Networks* (Operating Juniper Networks Routers in the Enterprise (OJRE), Advanced Juniper Networks Routing in the Enterprise (AJRE)).

Summer Training Plan for MANF Students

According to the MANF study plan and the MANF bylaws, here are the recommended practical training areas for each student level

Sophomore Level

- Get introduced to the usage of needed CAD tools
- Get introduced to the flows of ideation & innovation
- Enhance the notion of being part of a maker community
- Enhance the capability of reverse engineering and manufacturing basic electromechanical parts
- Enhance team building skills, self-confidence, and working in an interdisciplinary field
- Enhance business and marketing skills

Pre-Junior Level

- Get introduced to the phases of Product Design
- Enhanced knowledge of manufacturing processes
- Understanding of CNC Machining
- Boosting the skills of product integration
- Enhancing project management skills
- Get more involved in innovation & Entrepreneurship

Junior Level

- Enhancing hands on Product integration skills
- Applying knowledge of automation
- Enhancing Employability skills
- Integrating knowledge acquired so far in designing and implementing real products related to actual companies through on-university campus or preferably on-company campus internships

Summer Training Plan for ERGY Students

Summer training is offered to three academic levels (Sophomore, Pre-Junior, and Junior). Various modules are offered that cover; Protection, Electrical Machines, Automation, Electrical Power Distribution, Renewable Energy. They escalate from Basic, Medium, to advanced. To link the academic training with industry; a field trip is offered to students conducting this training. Students apply various applications of the gained knowledge using AutoCAD and Matlab software. At the end of each training session, students are required to pass an online course with a course assessment to acquire a training certificate. The contents of this summer training are as follows:

Sophomore Level:

- Low Voltage Switchgear: Function and selection (Protection)
- Motor Starting and Protection (Electrical Machines Level 1)
- Introduction to automated Process (Automation Level 1)
- Design of OFF grid PV systems (Renewable Energy Level 1)

Field Training to an Energy Management Company leader in the field of Protection and Switchboard.

Pre-Junior Level:

- Selectivity and cascading of LV circuit breakers (Protection Level 2)
- Utility Tariff and design of power factor correction panels (Electrical Power Distribution Level 1)
- Industrial System Automation (Automation Level 2)
- Smart homes using KNX systems (Renewable Energy Level 2)

Field Training to:

- Energy Management Company leader in the field of Protection and Switchboard
- Leading company in the field of Transformers and electrical Machines

AutoCAD Practical Applications

Junior Level:

- Low Voltage Earthing Scheme (Protection Level 3)
- Design of LV networks using Ecodial software (Electrical Power Distribution Level 2)
- Electric drives and harmonic filtering solutions (Automation Level 3)
- Grid connected PV systems (Renewable Energy Level 3)

Field Training to:

- Energy Management Company leader in the field of Protection and Switchboard
- Leading company in the field of Transformers and electrical Machines
- Leading Company in the field of Lighting and Renewable Energy

Matlab Practical Applications

Summer Training Plan for CESS Students

According to the CESS study plan and the CESS bylaws, here are the recommended practical training areas for each student level

Sophomore Level

- Basic software development (Simple desktop applications that do not need database connectivity nor web development. Development should follow basic but sound software engineering models)
- C#.NET
- Functional languages (e.g., Haskell, OCaml, Scheme, etc.)

Pre-Junior Level

- Intermediate software development (Larger desktop applications that might use databases, but that do not need web development. Development should follow basic but sound software engineering models with emphasis on object-oriented analysis and design)
- Problem solving and competitive programming
- Verilog/SystemVerilog/VHDL/SystemC
- System administration

Junior Level

- Advanced Software Development (Larger desktop and web applications. Using the agile software development paradigm is strongly recommended)
- Web development languages and frameworks not covered by the studied courses (e.g., ASP.NET, PHP, Python, Ruby, etc.)
- Embedded Systems
- Database administration
- Networks training equivalent to CCNA and/or more advanced levels
- Graphics-related applications (development of applications related to image processing, computer vision, 2D and 3D rendering, etc.)
- High-performance computing (parallel, distributed, cluster, GPU computing)
- Mobile applications development
- Games development

Summer Training Plan for Landscape Students

According to the LAAR study plan and the LAAR bylaws, here are the recommended practical training areas for each student level

Sophomore Level

- Design drawings basics.
- Different Architectural projects types and phases in design procedures.
- Visiting to the sites to show:
  - Types of structures (concrete, steel, masonry buildings)
  - The types of materials used in construction and finishing (brick - masonry - timber - insulating materials to moisture and heat – finishing floors - marble - … etc.)
  This is done through the construction companies have many different projects.

Pre-Junior Level

- Participate in design of different fields of projects (Architecture - Landscape - Urban design - Urban planning.
- Working drawings basics.
- Starts to have a role in sites supervision or construction actions.
- Workshops in researching or training centers or universities (in or out Egypt)
- Training on computer programs that aid the discipline.
- Competitions in the mentioned fields.

Junior Level

- Participate in design of different fields of projects (Architecture - Landscape - Urban design - Urban planning.
- Preparing working drawings.
- Presentation drawings basics.
- Tender Documents preparation.
- Have a role in sites supervision or construction actions.
- Workshops in researching or training centers or universities (in or out Egypt).
- Competitions in the mentioned fields.

Summer Training Plan for Mechatronics Students

The recommended practical training areas and development programs that suit the MECH study plan and bylaws, are listed in the following categorized topics:

Sophomore Level

- Get introduced to the usage of needed CAD tools
- Boost Programming Skills
- Get introduced to the flows of ideation & innovation
- Enhance the notion of being part of a maker community
- Enhance the capability of reverse engineering and manufacturing basic electromechanical parts
- Enhance team building skills, self-confidence, and working in an interdisciplinary field
- Enhance business and marketing skills

Pre-Junior Level

- Get introduced to the phases of Product Design
- Enhanced knowledge of manufacturing processes
- Understanding of CNC Machining
- Boosting the skills of product integration
- Enhancing project management skills
- Get more involved in innovation & Entrepreneurship

Junior Level

- Enhancing hands on Product integration skills
- Applying knowledge of automation
- Enhancing Employability skills
- Integrating knowledge acquired so far in designing and implementing real products related to actual companies through on-university campus or preferably on-company campus internships