

**MKAM 1013 Construction Project Management (3 credits)**

This course provides insight about contemporary practice in managing construction project. It analyse issues faced by construction industry and strategy to reengineer its current practice with regard to work process flow, procurement system and reporting system.

**MKAM 1023 Construction Site Management and Safety Control (3 credits)**

This course introduce main concept of project safety planning which include occupational and safety and health concept, safety risk and hazard at construction site. Legislation and safety code of practices such as OSHA 1994, BOWEC will be reviewed.

**MKAM 1043 Construction Law and Contract (3 credits)**

This course introduces Malaysia laws, which will focus on the sources, and branches of law in Malaysia. The course will emphasize on private laws related to construction practice, torts, law of contract and construction contract administration.

**MKAM 1053 Project Planning and Scheduling (3 credits)**

This course provides comprehensive analysis on the practice of project scheduling for construction project. It also provides in-class hands on training using MS project and Primavera planning software.

**MKAM 1103 Financial Management (3 credits)**

This course focuses on the theory and practice of financial decision making and financial management within organizations. It also introduced to some of the challenging issues facing managers in today's global financial landscape.

**MKAM 1133 Sustainability & Environmental Management in Construction (3 credits)**

This course is designed to promote collaboration and enhance understanding of the global challenge of sustainable development that is related to construction industry. The course will cover aspects of embodied energy (renewable & non-renewable), energy efficiency in building, construction waste, construction noise, water pollution, biodiversity and various sustainability controls, and prevention methods for construction. The environmental regulations & legislations; Environmental Impact Assessment (EIA) and Environmental Management System (EMS) will be incorporated into the course.

**MKAM 1033 Construction Technology (3 credits)**

Site inspection, investigation, clearance and preparation. Pile driving and construction methods. Construction production and control, IBS, bridge and high rise construction, other methods of construction.

**MKAM 1073 Project Estimating (3 credits)**

The syllabus covers the estimating and tendering process in the contractors organization, competitive bidding, procurement methods, cost management, build-up rates, production rates and machineries for earthwork & excavation.

**MKAM 1083 IT for Civil Engineers (3 credits)**

Information management, information modelling approach, activity/process modelling, data flow diagram, introduction to database, entity-relationship diagrams and modelling, database management system, decision support system, prototyping, knowledge management, groupware, artificial intelligence.

**MKAM 1123 Construction Plants Management (3 credits)**

This course uses concepts from various engineering disciplines such as Engineering Economics, Geotechnical, Mechanical, Structural and Environmental Engineering, among others. At the end of this

course, the student should be able to apply engineering fundamentals and analyses to the planning, selection and utilisation of construction equipment. This includes a through understanding on the total construction process and how construction equipment should be selected and used to produce the intended quality in the most cost effective manner.

**MKAE 1153 Advanced Concrete Technology (3 credits)**

This course emphasize materials and mix proportions of concrete, pozzolonic and chemical admixtures, cracks in concrete, permeability and porosity of concrete, causes of concrete deterioration, corrosion problem and how to repair.