FAKULTI KEJURUTERAAN KEJURUTERAAN KIMIA & SUMBER ASLI

	TEACHING PLAN	
1	**Course Code and Name**	BKC 3853 Process Monitoring
2	**Semester and Year Taught**	Year 3 and 4
3	**Program Level/Category**	Degree/Elective
4	**Unit**	3 Credits
5	**Prerequisite Course**	NIL
6	**Course Synopsis**	This is an introductory level course of statistical-based process monitoring, which includes univariate and multivariate-based systems. The topics covered are introduction to process monitoring, statistical process control (SPC), multivariate statistical process monitoring (MSPM), and also, industrial monitoring applications. In particular, the last chapter mainly expose the students with the other types of monitoring techniques, discussing the current issues of monitoring and also reviewing the recent developments of the MSPM extensions.
7	**Course Outcomes**	By the end of semester, students should be able to: CO1. Critically discuss the essentials and benefits of applying process monitoring system for ensuring smooth as well as safe industrial operability. CO2. Apply as well as analyze the univariate monitoring performance based on the progression of the means and range charts of SPC framework. CO3. Comprehensively explain in writing as well as solve mathematically the principles of multivariate analysis based on complex monitoring problem of MSPM framework. CO4. Develop a fault detection mechanism as well as perform investigation based on a specified case study by using a specialized software. CO5. Conduct a critical review of the current industrial monitoring issues particularly on the MSPM extensions.