

**UNIVERSITI TEKNOLOGI MARA**

**ASSESSMENT OF WATER QUALITY  
STATUS IN THE SWIMMING POOLS  
AROUND SHAH ALAM**

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Project submitted in fulfillment of the requirements for  
the degree of  
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(Hons.)**

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## DECLARATION BY STUDENT

Project entitled “Assessment of Water Quality Status in The Swimming Pools around Shah Alam” is a presentation of my original research work. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Project Supervisor, Mr Razi Ikhwan bin Md Rashid. It has been submitted to the Faculty of Health Sciences in partial fulfilment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

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## ABSTRACT

**Introduction:** The number of people who involve in water-related activities has been increasing, for example, swimming pool become the preferred places for people to play water sports, recreation and socialize. Therefore, the water quality status was covered the public swimming pools where it is the most high-risk source for certain water-related disease. **Objective:** Study was performed to determine the physico-chemical and microbiological water quality status of selected swimming pools. Next is to compare all parameter for water quality status with weekend and weekday of usage among swimming pools and lastly to determine the relationship of the present of the microbiological with the physico-chemical parameters of the water. **Methodology:** This cross-sectional study was carried out at five different public swimming pool where water samples were sampled two times during weekend and weekdays, and also was taken within three different time frames, before operation hour, during operation and after closing time. The data were obtained from in-situ for turbidity, pH and temperature and laboratory analysis for free chlorine, total coliform and E.coli. **Result:** Almost all the parameter did not comply with the public pool standard for all the sampling area except for the temperature measurement. Furthermore, the result for pH, turbidity, free chlorine and total coliform indicated as a significant difference between weekday and weekend, and with the p-value are lesser than 0.05 for all measurement except temperature and E.coli. Besides that, it is found that free chlorine has strong negative correlation during weekday and weekend which it indicates that free chlorine has a relationship in the presence of total coliform in the swimming pools water. **Conclusion:** All the swimming pools management need to perform any strategies in order to make the public swimming pool was safe for recreational usage and the water quality status complied with the standards.

*Keywords: swimming pools, bacteriological, physico-chemical, weekdays, weekends*