# Technical Informatics I
## Assignment 3

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# Assignment 3

- Aims
  - Familiarise students with control selection (repetition) or loops
- Expected Outcomes
  - Students are able to program simple codes that require the use of for, while and do-while loops
- References
  - Harry H. Cheng, 2010. C for Engineers and Scientists: An Interpretive Approach, McGraw Hill

# Assignment 3

Write **THREE** (**3**) codes that calculates the values of the function:

$$f(x) = \cos(x)$$

Using:

- **Code #1:** For loops
- **Code #2:** While loops
- **Code #3:** Do-while loops

# Assignment 3

The variable x should be in the range -10 ≤ x ≤ 10 with a step size of 5 and display the output EXACTLY as shown below:

```
>ch -u "hello.ch"
    x                |              cos (x)
------------------------------------------------
  -10.0000           |              -0.8391
   -5.0000           |               0.2837
    0.0000           |               1.0000
    5.0000           |               0.2837
   10.0000           |              -0.8391
>Exit code: 0
```

# Assignment 3

- In your code, make sure you:
  - Use appropriate comments
    - write your name, student ID and a brief explanation of what your code does
    - comment on certain important lines (at least 2 lines)
  - Program structure
    - Include all important elements (stdio.h, int main(), return 0 etc)
  - Declaration of variables
    - Assign appropriate types to the variables
    - Assign appropriate names for the assigned variables
    - Assign appropriate values to the variables
  - Function printf()
    - Prompts variable from user
    - Print out final answer with appropriate format specifier and calls to variables
  - Function scanf()
    - Appropriate format specifier assigned to variable

Communitising Technology

# Dr Fatimah

# Technical Informatics

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