

Technical Informatics I

Assignment 2

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Technical Informatics 1: Dr Fatimah

Assignment 2

- Aims
 - Familiarise students with arithmetic operations and math functions
- Expected Outcomes
 - Students are able to program simple codes that require C math functions to solve engineering problems
- References
 - Harry H. Cheng, 2010. C for Engineers and Scientists: An Interpretive Approach, McGraw Hill



Assignment 2

- Write a program called `func.c` that calculates the equation (1) below.

$$f(x, y) = 5 \cos(4\pi x) + \log_{10}(2y) - \sqrt{x^6} - e^{5y} \quad \dots\dots\dots (1)$$



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The code prompts the user for the value of x and y . The code then displays the value of x and y in 4 decimal places and $f(x)$ in 3 decimal places such that it looks ***EXACTLY*** like below:

```
Enter value of x:  
3.412  
Enter value of y:  
2.413  
f(3.4120,2.4130) = -173722.041  
  
>Exit code: 0
```

- In this example, 3.415 and 2.413 were my input.



Assignment 2

- 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



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