

Department	Mechanical	Program	
Subject Name	Computer applications in mech. engg. (CAME)	Subject Code MEC 705	
Semester	7th	Credits	3
		Teacher Incharge/Mentor	Prof. N. A. Sheikh

Unit I: Computer applications in mech. Engg.

Topic Name: Overview of C++

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=NiqeMDMPFY8>
2. <https://www.youtube.com/watch?v=EbNJ05EVXs0>

NOTES DOWANLOADED FROM:

1. <http://www.stroustrup.com/crc.pdf>
2. http://www.icsd.aegean.gr/lecturers/kavallieratou/Cplusplus_files/notes.pdf

Topic Name: Flow charts

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=DF2XAc07eI0>
2. <https://www.youtube.com/watch?v=qJQa--p4Hs>

NOTES DOWANLOADED FROM:

1. http://archive.mu.ac.in/myweb_test/syllFybscit/C++.pdf
2. <http://www.gsd.inesc-id.pt/~jnos/programacao/2012-2013-1/docs/flowcharting.pdf>

Topic Name: Computer languages

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=EbNJ05EVXs0>
2. https://www.youtube.com/watch?v=3N_tvmZrzc

NOTES DOWANLOADED FROM:

1. https://www.tutorialspoint.com/computer_programming/computer_programming_tutorial.pdf
2. http://www.sfcc.edu.hk/academic_subjects/cs/teaching_notes/CIT_theory/14_prg_lang.pdf
- 3.

Topic Name: Constants and variables

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=5yx6NunpAFQ>
2. <https://www.youtube.com/watch?v=d7tdL-ZEWdE>

NOTES DOWANLOADED FROM:

1. http://buc.edu.in/sde_book/bsc_comdata.pdf
2. http://www.cs.utexas.edu/users/fussell/cs310h/lectures/Lecture_16-310h.pdf

Topic Name: Arithmetic expressions

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=eytkPcvxb7o>
2. <https://www.youtube.com/watch?v=wHUWdnd6OdA>

NOTES DOWANLOADED FROM:

1. <https://courses.cs.vt.edu/~cs3304/Spring06/notes/ch7.pdf>
2. <http://flint.cs.yale.edu/cs422/doc/art-of-asm/pdf/CH09.PDF>

Topic Name: Constants and variables

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=7-bjVhkuMPk>
2. <https://www.youtube.com/watch?v=nEmhjssmp-K0>

NOTES DOWANLOADED FROM:

1. <http://www.cs.umb.edu/~bobw/CS110/Lecture03.pdf>
2. <https://www.pearsonhighered.com/samplechapter/0672326817.pdf>

Topic Name: Input/ output, control and the Do and for statements

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=tIx5yLDDkTQ>
2. <https://www.youtube.com/watch?v=0Pm1oAWobu0>

NOTES DOWANLOADED FROM:

1. <https://courses.cs.vt.edu/cs1044/Notes/C04.IO.pdf>
2. <https://stanford.edu/~boyd/ee102/ctrl-static.pdf>

Topic Name: Introduction to programming

1. <https://www.youtube.com/watch?v=EbNJ05EVXs0>
2. <https://www.youtube.com/watch?v=XfwZcYxwxZ4>

NOTES DOWANLOADED FROM:

1. <http://cevre.beun.edu.tr/zeydan/pdf/introduction-to-computer-programming.pdf>
2. <http://math.hws.edu/eck/cs124/downloads/javanotes6-linked.pdf>

Topic Name: Types of errors. Computational algorithms and computer arithmetic

LINKS TO THE RESOURCES:

1. https://www.youtube.com/watch?v=X_QJFDhogWk

NOTES DOWANLOADED FROM:

1. https://www.math.psu.edu/shen_w/451/NoteWeb/Notes-Ch1.pdf
2. http://www.math.umn.edu/~olver/num_/lna.pdf

Topic Name: Iterative methods

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=hUvT4Xna1OQ>
2. <https://www.youtube.com/watch?v=LjsZh2ER1z4>

NOTES DOWANLOADED FROM:

1. http://home.iitk.ac.in/~psraj/mth101/lecture_notes/lecture8.pdf
2. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.47.104&rep=rep1&type=pdf>

Topic Name: Solution of equations using many methods

LINKS TO THE RESOURCES:

1. <https://www.youtube.com/watch?v=VcmN90IB8fM>

2. <https://www.youtube.com/watch?v=aqvP7rFR7sQ>
3. <http://freevideolectures.com/Course/2663/Numerical-Methods-and-Programing/23>
4. <http://nptel.ac.in/courses/122102009/>
5. <http://nptel.ac.in/courses/111105038/>
6. <http://nptel.ac.in/courses/111101003/>

NOTES DOWANLOADED FROM:

1. https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwizqZaEh87QAhXDPo8KHeg3CX8QFggcMAA&url=http%3A%2F%2Fscilab.in%2Ftextbook_companion%2Fgenerate_book%2F845&usg=AFQjCNGCrw0pT2K8_USpZhLAQxd-It_qZA&sig2=mWrDqKgaC18_6T5fUILJ6Q
2. http://www.universityofcalicut.info/SDE/BSc_maths_numerical_methods.pdf
3. http://vle.du.ac.in/file.php/680/p1/chapter_2_part_1_final.pdf

BOOKS TO BE CONSULTED:

1. Sastry,S. “ Numerical Methods”, Printice Hall of India, New Delhi
2. Lafore , G, “C++ Programming”, Galgotia publishers,New Delhi, 2001
3. Veerarajan, “ Numerical Methods”, Tata Mc-GrawHill, New Delhi, 2000