Course Name	Design of Fault Tolerant Systems
References	1. E. Dubrova, Fault-Tolerant Design, Springer, 2013. 2. I. Koren, C. M. Krishna, Fault-Tolerant Systems, Morgan-Kaufmann Publisher, 2007. 3. B. Parhami, Dependable Computing: A Multilevel Approach, available online: www.ece.ucsb.edu/~parhami/text_dep_comp.htm 4. S. Mukherjee, Architecture design for soft errors, Morgan Kaufman, 2008.
Course instructor	Dr. Atena Abdi
Syllabus	1. Definition, importance and applications of Fault Tolerance 2. Fundamentals of dependability o Attributes, threats and means 3. Redundancy as a key in design of fault tolerant systems 4. Hardware redundancy o Schemes, applications and evaluations 5. Information redundancy o Schemes, applications and evaluations 6. Time redundancy o Schemes, applications and evaluations 7. Software redundancy o Schemes, applications and evaluations 8. Dependability evaluation o Experimental and analytical approaches o Common measures o Reliability block diagram and fault tree o Markov Processes 9. Fault tolerance distributed systems (challenges and solutions)