

SEMESTER	DEPARTMENT	COURSE TITLE
<i>Forth</i>	<i>General Engineering</i>	<i>Analog Electronics II Lab</i>
COURSE CODE	HOURS: 3	COURSE SPECIFICATIONS
<i>ET403</i>	UNITS: 1	<i>Practical Contents</i>
<p>1. Two Stages Amplifier:</p> <ul style="list-style-type: none"> ➤ Building and testing two stage amplifier. ➤ Voltage gain, input and output impedances measurements of a two stage amplifier ➤ Plotting voltage-current characteristics. 		
<p>2. Design of CE Amplifier and Frequency Response Plot.</p>		
<p>3. Power Amplifier:</p> <ul style="list-style-type: none"> ➤ Building and testing a class-A transformer-coupled power amplifier. ➤ Building and testing a class-B push-pull amplifier and measuring its efficiency. ➤ Building and testing a class-B complementary push-pull amplifier and measuring its efficiency. 		
<p>4. Operational Amplifier:</p> <ul style="list-style-type: none"> ➤ Building and testing: <ul style="list-style-type: none"> • An inverting amplifier. • A non-inverting amplifier and unity gain buffer. • A differentiator. • An integrator. • An op-amp as a comparator. • A difference and a summer amplifiers. • Rectifier circuits using op-amps. 		
<p>References:</p> <ol style="list-style-type: none"> 1. Ronald J. Tocci, <i>Fundamentals of Electronic Devices</i>, Charles E. Merrill Publishing. 2. Theodore F. Bogart, <i>Electronic Devices and Circuits</i>, Prentice-Hall. 3. Ralph J. Smith, <i>Circuits, Devices and Systems</i>, John Wiley. 4. Jacob Millman and Arvin Grabel, <i>Microelectronics</i>, McGraw Hill. 		

5. Micheal Jacob, *Applications and Design with Analog Integrated Circuits*, Prentice Hall.
6. أساسيات الالكترونيات، تأليف: أي إن لورج، تعريب معن محمد شاکر.
7. Paul B. Zbar, *Basic Electronics*, McGraw-Hill book company.
8. Paul B. Zbar, *Industrial Electronics; A Text-Lab Manual*, McGraw-Hill book company
9. Horwitz and Robinson, *Laboratory Manual for the Art of Electronics*, Cambridge University Press.
10. Phillip Cutler, *Linear Electronic Circuits with Illustrative Problems*, McGraw-Hill Inc.