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| Technical college\Mosul | 30 Weeks | No. of week hours | | |
| Department: Medical Instrumentation Engineering | | Th. | App. | Unit |
| | | 2 | 2 | 6 |
| Third Year | Subject: Signal processing. | | | |

أهداف المادة:- تعليم الطالب المواضيع الأساسية لمعالجة الإشارة و استخدامها في معالجة إشارات الصوت و الصورة .

| Week | Syllabus |
|--|--|
| 1 st , 2 nd , 3 rd | Introduction to signal processing . |
| 4 th , 5 th , 6 th | Convolution and sampled data system . |
| 7 th , 8 th , 9 th | Fourier series and Fourier transform . |
| 10 th , 11 th , 12 th | Z – transform . |
| 13 th , 14 th | Discrete Fourier transform (DFT) . |
| 15 th , 16 th | Fast Fourier transform (FFT) . |
| 17 th , 18 th , 19 th | Digital filtering . |
| 20 th , 21 st , 22 nd | IIR digital filters . |
| 23 rd , 24 th | FIR digital filters . |
| 25 th , 26 th , 27 th | Speech processing . |
| 28 th , 29 th , 30 th | Image processing . |