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| الفرقة  | الثالثة انتاج (3ج) | مقرر جديد  |
| اسم المقرر  | Machine tools design |
|  | تصميم الات ورش |
| استاذ المقرر | أ.د/ محمد فكري حسيند. أحمد محروسد. محمد عبد الله بهلول |
| العناوين المقترحة للبحث : |
| 1- A study about metal cutting machine tools design including the following:- machine tools structure - mechanical transmission elements- hydraulic valves in metal cutting machine tools, types, and main specifications. Give hydraulic circuits. |
| 2- A study about metal cutting machine tools design including the following:- machine tools guideways - feed and speed gearboxes- hydrostatic pumps used in machine tools .Give main specifications and constructions. Demonstrate with examples.  |
| 3- A study about metal cutting machine tools design including the following:- Machine tools spindle design - sliding gear boxes design - hydrostatic pumps: types, main specifications, and method of selection. Explain with neat schemes.  |
| 4- A study about machine tools design including the following:- Machine tools manufacturing, foundation and leveling.- machine tools structure- A study on hydraulic actuators: types, specifications, working and use. Give hydraulic circuits.  |