Assessment and subject description

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| Óbuda UniversityKandó Kálmán Faculty of Electrical Engineering | Institute of Microelectronics and Technology |
| **Subject name and code: Electronics Technology laboratory KMEET12ANC,** **Credits: 2****Full-time, Spring Semester** |
| Course: Electrical engineering |
| Responsible: | Csikósné Dr. Pap Andrea | Teaching staff: | Gröller György ,Tompos Péter |
| Prerequisites: |  |
| Contact hours per week: | Lecture:  | Class discussion:  | Lab hours: 2 | Tutorial:  |
| Assessment and evaluation: |  |
| **Subject description** |
| *Aims*: To develop laboratorial skills in the field of PCB technology. |
| *Topics to be covered:*  |
| **Topics**  | **Week** | **Lessons** |
| Introduction, working and safety rules | 1 | 3 |
| Manufacturing: Double side, through hole plated PCB. drilling, making hole conductive | 2 | 3 |
| Photolithography, galvanic plating | 3 | 3 |
| Solder mask preparation and patterning | 4 | 3 |
| Assembly processes, soldering TH and SM devices | 5 | 3 |
| Design: Circuit diagram I, borders, finding parts, choosing encapsulation. Block processes, | 6 | 3 |
| Circuit diagram II Drawing a schematic: finding parts, choosing package footprint, wiring, block operations. Board module, practise | 7 | 3 |
| Routing, placing components. Auto routing, manual routing | 8 | 3 |
| Design Rule Check (DRC), practising. Demo | 9 | 3 |
| **Assessment and evaluation**Requirements of the signature:A successful design work 50% Report about PCB processes: 25% Final test 25% |
| Suggested material<http://www.uni-obuda.hu/users/grollerg/Electronic-technology/labor/Double%20side%20PCB-labor1-4.pdf>  |
| Comment:  |