附件2

**武汉大学全英文授课课程信息表**

**Wuhan University Course Outline**

**School/Department: Wuhan University School of Basic Medical Sciences/Department of Biochemistry**

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| **Course Name (Chinese)\*** | 生物化学实验 |
| **Course Name (English)\*** | Experimental Biochemistry |
| **Course Code\*** | 1000365 |
| **Availability\*** | □Semester 1 **■**Semester 2 |
| **Course Hours\*** | 48 |
| **Credits\*** | 1.5 |
| **Course Description\*** | This course include a series of practical classes which integrated with the lectures to allow students to further develop concepts covered in the lectures, and also to become familiar with techniques commonly used in biochemistry laboratories. |
| **Course Objectives/Content\*** | This course focuses on the methodology of biochemistry, including ①Spectrophotometry---Quantitative Analysis of Protein; ②Electrophoresis---Separation of Serum Proteins by Cellulose Acetate Membrane; ③Chromatography---Separation of hemoglobin and protamine by gel filtration chromatography and Separation of mixed amino acids by cation exchange chromatography; ④Isolation, purification and identification of nucleic acids---Preparation of genomic DNA from peripheral blood (NaI method), Identification of DNA by UV-Spectrophotometry and gel electrophoresis; ⑤Enzyme Analysis: Assay the Lactate dehydrogenase(LDH) in serum; ⑥Enzyme Kinetics: Determination of Km value for Alkine Phosphatase; ⑦Enzyme Analysis: Determination of Blood Sugar (Endpoint method); ⑧Protein separation by SDS-Polyacrylamide Gel Electrophoresis; ⑨Enzyme Analysis: Assay the activity of Alanine Aminotransferase (ALT) in serum |
| **Teaching Methods** | Demonstration and guide students’ operation |
| **Assessment\*** | Examination, reports, practice test |
| **Textbook(s)** | Yu Hong, Huang XinXiang (Chief Editors). Experimental manual in medical biochemistry. (First Edition). Wuhan University Publishing House. 2008.9 ISBN 978-7-307-06534-5 |
| **Reading** | 1. Richard R. Burgess and Murray P. Deutscher. Guide to Protein Purification (Second Edition)
2. Clive Dennison. A Guide to Protein Isolation. Kluwer Academic Publishers. eBook (ISBN: 030646868-9)
3. [Keith](http://search.dangdang.com/book/search_pub.php?category=01&key2=Keith&order=sort_xtime_desc) HYPERLINK "http://search.dangdang.com/book/search\_pub.php?category=01&key2=Wilson&order=sort\_xtime\_desc" \t "\_blank" Wilson.《Practical Biochemistry》[Oversea Publishing House](http://search.dangdang.com/search_pub.php?key=&key3=Oversea).
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| **Prerequisites** | Grasp the basic knowledge and techniques of Biochemistry and Cell Biology |
| **Lecturer(s)** | YU Hong, HE Chunyan, ZHANG Baifang, FAN Chengpeng, DU Fen, WANG Min, SHANG Liang, Miao Lixia |

注：\*为必填。