



Европейски съюз

ОПЕРАТИВНА ПРОГРАМА
„РАЗВИТИЕ НА ЧОВЕШКИТЕ РЕСУРСИ“ 2007-2013



Европейски социален фонд

МИНИСТЕРСТВО НА ОБРАЗОВАНИЕТО И НАУКАТА

Проект BG051PO001-3.1.07-0048 „Актуализиране на учебните планове и програми на специалностите във ФЕТТ, ФТК и МТФ на ТУ-София и създаване на нова съвместна магистърска специалност в съответствие с потребностите на пазара на труда“

DESCRIPTION OF THE COURSE

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| NAME OF THE COURSE: NANOMATERIALS | CODE: MMTH01 | SEMESTER: 1 |
| TYPE OF TEACHING: LECTURES AND LABORATORY WORK | LESSONS PER WEEK: L-2H, LW-2H | NUMBER OF CREDITS: 6 |

LECTURERS:

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Assist. prof. PhD Mariya Aleksandrova, phone 965 30 85, email: m_aleksandrova@tu-sofia.bg, Department of Microelectronics, Faculty of Electronics, Technical University of Sofia.

Assoc. Prof. PhD Iva Betova, phone: 965 2258, e-mail: iva_betova@tu-sofia.bg, Technical University of Sofia, Faculty of Electronics, Department of Chemistry.

COURSE STATUS IN THE CURRICULUM: Compulsory for students of "Microtechnology and nanoengineering", MSc program.

AIMS AND OBJECTIVES OF THE COURSE:

The aim of the course "Nanomaterials" is to acquaint students with the current state and prospects for the near future development of nanomaterials and nanotechnology. During the exercises they get a practical idea of nanomaterials and methods for their identification.

DESCRIPTION OF THE COURSE: During the course students will gain theoretical knowledge of the newest nanomaterials in electronics and practical will be acquainted with the modern methods used for qualitative and quantitative analysis of nanomaterials.

PREREQUISITES: Basic knowledge in materials in microelectronics, physics, chemistry, measurement electronics.

TEACHING METHODS:

The lectures are held in hall with multimedia projecting. The course management is by using a site <http://ecad.tu-sofia.bg/nanomat>. We present additional materials there. Each visit of lecture brings additional points for the final evaluation. There are additional questions for self preparing. For further questions or clarifications students use the forum in the discipline's web site.

METHOD OF ASSESSMENT: Written exam at the end of the first semester. The examination can be by full questions development or test (sample questions for the test are previously provided). Can be applied electronic forms of testing.

TEACHING LANGUAGE: Bulgarian with possibility for English teaching.

BIBLIOGRAPHY:

1. А. Попов, Наноматериали и нанотехнологии, Изд. СУ-София, 2008; 2. Г. Младенов, Нанотехнологии и наноелектроника, Акад. издателство „Проф. Марин Дринов“, София, 2010.