

PETROLEUM-GAS UNIVERSITY OF PLOIESTI
DOCTORAL SCHOOL
Doctoral field **CHEMICAL ENGINEERING**

Approved in the CSD meeting of _____

Doctoral School Director
Prof. PhD habil. Mihai Albuлесcu

SYLLABUS

TRANSFER PHENOMENA AND SPECIFIC EQUIPMENTS

Discipline category: **Advanced knowledge**

Number of hours for study: **210**

Number of credits allocated: **15**

Evaluation form: **Exam**

CONTENT

- 1. Momentum transfer phenomena and specific equipments**
- 2. Heat transfer phenomena and specific equipments**
- 3. Molecular diffusion. Fluid diffusion**
- 4. Diffusion separation processes (distillation, absorption, liquid-liquid extraction, adsorption, membrane separation) and specific equipments.**

REFERENCES

1. McCabe W., Smith J., Harriott P., Unit operation of chemical engineering, 5th Edition, McGraw Hill International Edition, 1993
2. Couper J.R., Penney W.R., Fair J.R., Walas S.M., Chemical Process Equipment Selection and Design, 3th Edition, Butterworth-Heinemann Elsevier Inc, 2012
3. Dobrinescu D, Echipamente de transfer termic și utilaje specifice, Editura Didactică și Pedagogică, 1983
4. Bachus L., Custodio A., Know and Understand Centrifugal Pumps, Elsevier Ltd, 2003
5. Strătuță C., Fraționarea-principii și metode de calcul, Editura Tehnică 1986
6. Cussler E.L., Diffusion mass transfer in fluid systems, 3th Edition, Cambridge University Press, 2007
7. L. K. Wang, J. P. Chen, Y-T. Hung, N. K. Shamas (Eds.), HANDBOOK OF ENVIRONMENTAL ENGINEERING, VOLUME 13-Membrane and Desalination Technology, 2011

Responsible for the doctoral field

Course coordinator:

Assoc Prof. PhD. Eng. Mihaela Neagu

Prof. habil. PhD. Eng. Diana Cursaru