



Universidade Federal
de São João del-Rei

UNIVERSIDADE FEDERAL DE SÃO JOÃO DEL-REI – UFSJ
 INSTITUÍDA PELA LEI Nº 10.425, DE 19/04/2002 – D.O.U. DE 22/04/2002
 PRÓ-REITORIA DE PESQUISA E PÓS-GRADUAÇÃO – PROPE
 COORDENADORIA DO PROGRAMA DE PÓS-GRADUAÇÃO EM
 CIÊNCIAS MORFOFUNCIONAIS – PPGCM

TEACHING PLAN

BASIC INFORMATION						
Subject Laboratorial techniques					Departament/ University DCNAT	
Subject Coordinator Raquel Alves Costa (05h)						
Professor Patrícia D'Almeida Lima (05h) Fernando Rubantino (05h)						
Year/semester 2020/1	Workload/Credits				Subject Optional/	Code
Level Mestrado	Theoretical 15h/a	Pratice 0h/a	Total 15h/a	Credits 01		
Pré-requisito:				Co-requisito:		
SUMMARY						
Atualization in molecular biology techniques with application in the research, immunohistochemical techniques; immunofluorescence and flow cytometry techniques and applications.						
OBJECTIVES						
The study involves the use of molecular biology techniques, as well as immunohistochemistry/immunofluorescence and flow cytometry.						
COURSE CONTENT						
1- RT-PCR, Western blotting 2- Immunohistochemistry and Immunofluorescence 3- Flow cytometry and its application for cellular characterization and separation;						
TEACHING METHODS USED						
Tick X (X) Lecture on blackboard (x) Seminar () Transparent lecture () Research (x) Multimedia class (x) Individual work () Practical class (X) Group work () Text discussion () Technical visit () Film (x) Other: Reading and discussion of scientific articles.						



Universidade Federal
de São João del-Rei

UNIVERSIDADE FEDERAL DE SÃO JOÃO DEL-REI – UFSJ
INSTITUÍDA PELA LEI Nº 10.425, DE 19/04/2002 – D.O.U. DE 22/04/2002
PRÓ-REITORIA DE PESQUISA E PÓS-GRADUAÇÃO – PROPE
COORDENADORIA DO PROGRAMA DE PÓS-GRADUAÇÃO EM
CIÊNCIAS MORFOFUNCIONAIS – PPGCM

OBS: The course will take place remotely and the google meet platform

(<https://meet.google.com/ech-uten-dci>)

will be used to hold classes using multimedia synchronously. In addition, there will be asynchronous activities for reading scientific articles, preparing seminars, among others.

Attendance will be assessed at each class by answering a google form sent in the synchronous class chat during the class and calls when face-to-face. In asynchronous activities, attendance will be assessed by the delivery of the finalised activity.

Classes will take place with the possibility of using information and communication technologies.

The syllabus will be developed through synchronous remote dialogue lectures using "Google meet" and/or asynchronously by providing files or links to access videos, texts, slide shows, among others, through the UFSJ Teaching Portal. These remote classes will include: 1) group discussions mediated by scientific articles, texts or videos, 2) answers to questionnaires, directed questions, the creation of mind maps or other ways of measuring the construction of knowledge by the students.

ASSESSMENT CRITERIA

The points will be distributed in seminars, discussion groups and activities, as follows.

- project describing the three techniques studied (4 points)
- three assessments - performance in class in discussion of the article with the methods (2 points - totalling 6 points)

Note: Grades will be recorded as 10 points, and the student who obtains a grade equal to or greater than 6.0 (six) points in the course unit will be considered approved.

BASIC BIBLIOGRAPHY

Alberts, B.; Johnson, A.; Lewis, J.; Raff, M.; Roberts, K.; And Walter, P. Molecular biology of the cell. 5Th ed. Garland Science, 2007.

Harvey Lodish; Arnold Berk; Chris A. Kaiser; Monty Krieger; Anthony Bretscher; Hidde Ploegh; Angelika Amon. Biologia Celular e Molecular. 7ª edição, 2014.

Lodish, H.; Berk, A.; Kaiser, C.A.; Krieger, M.; Scott, M.P. Molecular Cell Biology. 6th edition. New York: W.H. Freeman and Company, 2008.

Nelson, D.L., Cox, M.M. Lehninger principles of biochemistry. 5th edition. New York: W.H. Freeman and Company, 2009.

Scientific articles published in international journals.

SUPPLEMENTARY BIBLIOGRAPHY

Indexed scientific papers



Universidade Federal
de São João del-Rei

UNIVERSIDADE FEDERAL DE SÃO JOÃO DEL-REI – UFSJ
INSTITUÍDA PELA LEI Nº 10.425, DE 19/04/2002 – D.O.U. DE 22/04/2002
PRÓ-REITORIA DE PESQUISA E PÓS-GRADUAÇÃO – PROPE
COORDENADORIA DO PROGRAMA DE PÓS-GRADUAÇÃO EM
CIÊNCIAS MORFOFUNCIONAIS – PPGCM

Approved by the Collegiate at ____/____/____

Subject Coordinator

Coordinator of the PPGCM