COURSE DATA

DATA SUBJECT

Code: 36356
Name: Human Reproduction
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1204 - Degree in Medicine	Facultat de Medicina i Odontologia	4	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1204 - Degree in Medicine	Optional subjects	ELECTIVES

COORDINATION

BELLVER PRADAS JOSE

SUMMARY

The main objective of this optional subject is for the student to delve into the specific field of human reproduction from an eminently practical perspective. Human reproduction is an area of great current scientific progress and that in itself is constituting an independent subspecialty within gynecology in many countries.

The subject reviews the main causes of human infertility, as well as the diagnostic methods for its detection and the current therapies described in the management of infertile couples, whose prevalence in developed countries already exceeds 15% of the population of reproductive age.

Not only is knowledge about human reproduction acquired, but the fundamental skills necessary for their subsequent professional development are enhanced in students, referring to the extraction of scientific information from relevant published works, teamwork, the presentation of a topic with which control of time necessary for correct presentation and the need to speak in public, and finally the resolution of clinical cases based on the knowledge acquired.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

This subject requires certain prior medical knowledge, so it should only be offered to students between 4th and 6th year of Medicine.

COMPETENCES / LEARNING OUTCOMES

1204 - Degree in Medicine

Acknowledge diversity and multiculturality.

Capacity for communicating with professional circles from other domains.

Consideration of ethics as a fundamental value in the professional practise.

Criticism and self-criticism skills.

Proper organisation and planning of the workload and timing in professional activities.

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Team-working skills and engaging with other people in the same line of work or different.

Understand and recognise source agents and risk factors which determine health status and the development of diseases.

Understand and recognise the effects, mechanisms and manifestations of diseases over the structure and function of the human body.

Working capacity to function in an international context.

DESCRIPTION OF CONTENTS

1. Seminal Factor

1- Evaluation of the infertile male
2- Semen analysis (WHO criteria)

3- Role of imaging in male infertility
4- Semen preparation for assisted reproduction
5- New diagnostic tests in semen analysis
6- New concepts in male infertility
7- Genetic screening in male infertility
8- Sperm DNA fragmentation
9- Management of obstructive azoospermia
10- Management of non-obstructive azoospermia
11- Management of anejaculation and retrograde ejaculation
12- Impact of genital infections on male fertility
13- Semen washing in hepatitis C and HIV
14- Fertility preservation in men

2. Ovarian Factor

1- Assessment of ovulation and ovarian reserve
2- Ovarian reserve: update
3- Anti-Müllerian Hormone (AMH): Predictive marker of ovarian response
4- Predictive role of combining AMH and antral follicle count
5- Evaluation of amenorrhea
6- Polycystic ovary syndrome (PCOS): Pathogenesis and diagnosis
7- PCOS: Fertility treatment
8- Poor ovarian response to stimulation
9- Premature ovarian failure
10- Endometriosis
11- Pathophysiology of endometriosis
12- Diagnosis of endometriosis
13- Medical treatment of endometriosis
14- Surgical treatment of endometriosis
15- Fertility preservation in women

3. Uterine Factor

1- Uterus and fertility
2- Uterine evaluation in infertility
3- Müllerian anomalies: Prevalence and diagnosis
4- Müllerian anomalies: Reproductive consequences
5- Müllerian anomalies: Management
6- Fibroids and fertility
7- Polyps and fertility
8- Adenomyosis and fertility
9- Adenomyosis and endometrium
10- Asherman's syndrome
11- Assessment of endometrial receptivity
12- Genomic evaluation of endometrial receptivity
13- Uterine transplantation

4. Tubal Factor

1- Tubal anatomy, physiology and pathology
2- Value of clinical history in tubal pathology
3- Chlamydia screening
4- Methods for assessing tubal patency
5- Tubal flushing in infertility
6- Tubal surgery
7- Tubal surgery prior to IVF
8- Hydrosalpinx
9- Laparoscopy and hydrosalpinx
10- Salpingectomy for hydrosalpinx and IVF
11- Tubal recanalization
12- Post-sterilization tubal anastomosis
13- Robotic surgery

5. Recurrent Pregnancy Loss

Topics to be addressed:
1- Definition, epidemiology and prognosis
2- Etiology:
- Chromosomal
- Antiphospholipid syndrome
- Uterine
- Inherited thrombophilias
- Endocrine
- Infectious
- Alloimmune
3- Diagnosis
4- Treatment

Publications:
1- Recurrent miscarriage (I)
2- Recurrent miscarriage (II)
3- Recurrent miscarriage (III)
4- Recurrent miscarriage (IV)
5- Chromosomal factor
6- Uterine factor
7- Antiphospholipid syndrome
8- Inherited thrombophilia
9- Endocrine factor
10- Progesterone
11- Alloimmunity

6. Diagnosis and Treatment of the Infertile Couple

1- Basic evaluation of the infertile woman

2- Basic evaluation of the infertile man
3- Diagnosis and treatment of infertility (I)
4- Diagnosis and treatment of infertility (II)
5- Office hysteroscopy and infertility
6- Role of laparoscopy in infertility
7- Endoscopic surgery and infertility
8- Robotic surgery and infertility
9- Ovulation induction and timed intercourse
10- Artificial insemination
11- In Vitro Fertilization (IVF) – ICSI
12- Oocyte donation
13- Preimplantation Genetic Diagnosis / Screening (PGD, PGS)
14- Oocyte cryopreservation (for reproductive or social reasons)
15- Environment and reproduction

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	19,00
Seminar	26,00
Total hours	**45,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	35,00
Independent study and work	10,00
Preparation of lessons	22,50
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**67,50**

TEACHING METHODOLOGY

The practical approach of the course is based on students preparing presentations, after receiving appropriate guidance and bibliographic support from the responsible professor. Based on well-coordinated teamwork by each group assigned to one of the topics, the work will then be presented and discussed with the support of practical clinical cases provided by the professor.

1 - **Inaugural class**
Presentation of the course. Division of students into 6 working groups. Each group is assigned one of the six content blocks, subdivided into as many topics as there are students in the group.

2 - **Meeting with the responsible professor**

During the two weeks following the inaugural class, each group will meet individually with the professor, who will distribute the group's topics, provide necessary bibliography, and discuss key content to be developed, as well as practical aspects of how to give an oral presentation, including content structure, time management, and slide formatting.

3 - **Group work**
Throughout the cuatrimester, each group will meet regularly after reviewing the bibliography to design their topic presentation. Ongoing contact with the professor via Virtual Classroom, email, or in person, depending on the students' needs.

4 - **Presentation of the topic**
Each group will present their topic on a scheduled date to the rest of the class and the professor. Presentations will last a maximum of 1.5 hours. The professor will clarify concepts and may ask questions during the session. Each class will last a maximum of 2 hours.

5 - **Clinical case session**
In the following class (1 hour), the professor will present two clinical cases related to the previously presented topic. All students will be expected to participate, especially those who presented the related topic, as they are presumed to have deeper knowledge.

6 - **Repetition of sessions**
Given the six thematic blocks, steps 4 and 5 will be repeated for each, resulting in 12 in-person sessions: six 2-hour sessions for topic presentations, and six 1-hour sessions for discussion of 12 clinical cases reviewing all course content.

7 - **Attendance and participation**
Attendance will be recorded at each of the 12 classes. A minimum attendance of 10 out of 12 classes, together with an adequately prepared and delivered presentation, and active participation in clinical case discussions, is required to pass the course without a final exam. Attentiveness and respect for peers will also be considered.

8 - **Failure to meet requirements**
Attending fewer than 10 classes or failure to complete or properly prepare the assigned work will result in failure of the course, with the only option to pass being through a multiple-choice exam in the two official exam sittings. Additionally, only through this exam will students be eligible for honors or to improve their final grade.

WORKING GROUPS

- Seminal Factor
- Ovarian Factor
- Uterine Factor
- Tubal Factor
- Recurrent Pregnancy Loss
- Diagnosis and Treatment of the Infertile Couple

A gender perspective, respect for diversity, and the Sustainable Development Goals (SDGs) will be incorporated into the teaching process wherever possible.

EVALUATION

The evaluation of the subject is done in the form of continuous evaluation. The theoretical part is worth 50% of the grade and the practical part, the other 50%. In obtaining this grade, attendance and participation in the different activities are taken into account and to pass the subject it is not necessary to take an extra exam in addition to the continuous evaluation.

For those students who do not obtain an overall grade of 5 points, they must take a final theoretical-practical exam of the subject in order to pass it, as well as those students who, having passed the subject, wish to improve their grade or obtain an honors degree. In that case, the exam will be multiple choice with 5 possible answers, only one true, each 3 failed answers will subtract 1 correctly answered question. Theory and practice are valued together.

It is a requirement to access the advance call for this subject that the student has completed all of his/her practices.

Attendance at practical activities is mandatory. The student is considered to meet this requirement if he or she has attended a minimum of 80% of these activities and has adequately justified the impossibility of attending the remaining sessions due to the occurrence of a cause of force majeure. It will be essential to comply with this requirement to pass the subject.

Students are reminded of the importance of carrying out evaluation surveys on all the teaching staff of the degree subjects.

REFERENCES

- Recursos e-Salut:

- ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]
- Acces Medicina [https://uv-es.libguides.com/Access_Medicina]
- Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana]