科目名 Course Title		
遺伝学1(Genetics I)		
学科・専攻 Department/Program		受講年次 Grade
G30 Biology		2nd
授業形態 Class style		必修・選択の別 Compulsory or Elective
講義		* See "Remarks"
時間割コード Registration code		開講期・曜日・時限 Semester,Day & Period
0682070		Fall semester Thu: 2
単位数 Credit		科目区分 Course type
2		
担当教員 Instructor	VASSILEVA Maria(VASSILEVA Maria)	
所属研究室 Laboratory	E202	
連絡先 Contact	mnvassileva@bio.nagoya-u.ac.jp	
居室 Room E202		

### 講義の目的とねらい Course purpose

This course expands the basic knowledge of genetics acquired in year one, and is the beginning of a series of courses on Genetics.

Students will learn the mechanisms of processes related to how genetic information is inherited rigidly and flexibly from generation to generation.

Students are expected to become confident at using appropriate scientific terminology, understand the studied genetics concepts and be able to analytically manipulate this information.

### 履修要件 Prerequisite

Strongly recommended to have completed Fundamentals of Biology 1

#### 履修取り下げの方法について How to Apply for Course Withdrawal

<「履修取り下げ届」提出の要・不要 Necessity/Unnecessity to submit "Course Withdrawal Request Form"> Necessary

<条件等 Conditions>

Need to submit a Course Withdrawal Request Form when students have no intention of finishing a course during the semester. Submit Course Withdrawal Request form by the sixth lecture to receive an Absent grade. For later course withdrawal contact the lecturer.

## 成績評価 Grading

Evaluation is based on in-class participation, assignments and written examinations.

#### 不可(F)と欠席の基準 Criteria for "Absent" &"Fail" grades

Absent – based on submission of Course Withdrawal Request Form.

Fail – based on a total accumulated score of less than 60%.

### 関連する科目 Related courses

Genetics II, Genetics III

#### 教室 Class room

Check the Course Timetable.

A 407

# 授業内容 Content

Overall theme of the course - Maintenance of the genome

Detailed content:

- 1. Mendelian genetics
- 2. DNA and RNA structure
- 3. Chromosomes, chromatin, and the nucleosome
- 4. Replication of DNA
- 5. Mutability and repair of DNA
- 6. Genetic recombination

### 教科書 Textbook

Molecular Biology of the Gene, Watson, James D. et al., Pearson Education.

# 参考書 Recommended reading

Essentials of Genetics, William S. Klug et al., Benjamin Cummings. Molecular Biology of the Cell, B. Alberts et al., Taylor and Francis.

#### 連絡方法 Contact method

by e-mail

## その他 Remarks

\*See Course List and Graduation Requirements for your program for your enrollment year.