FORMATIVE ASSESSMENT REVISITED: COMBINED USE OF MOODLE AND MAHARA FOR ELEVATING TEACHING GOALS IN SOME MEDICAL SCHOOL COURSES

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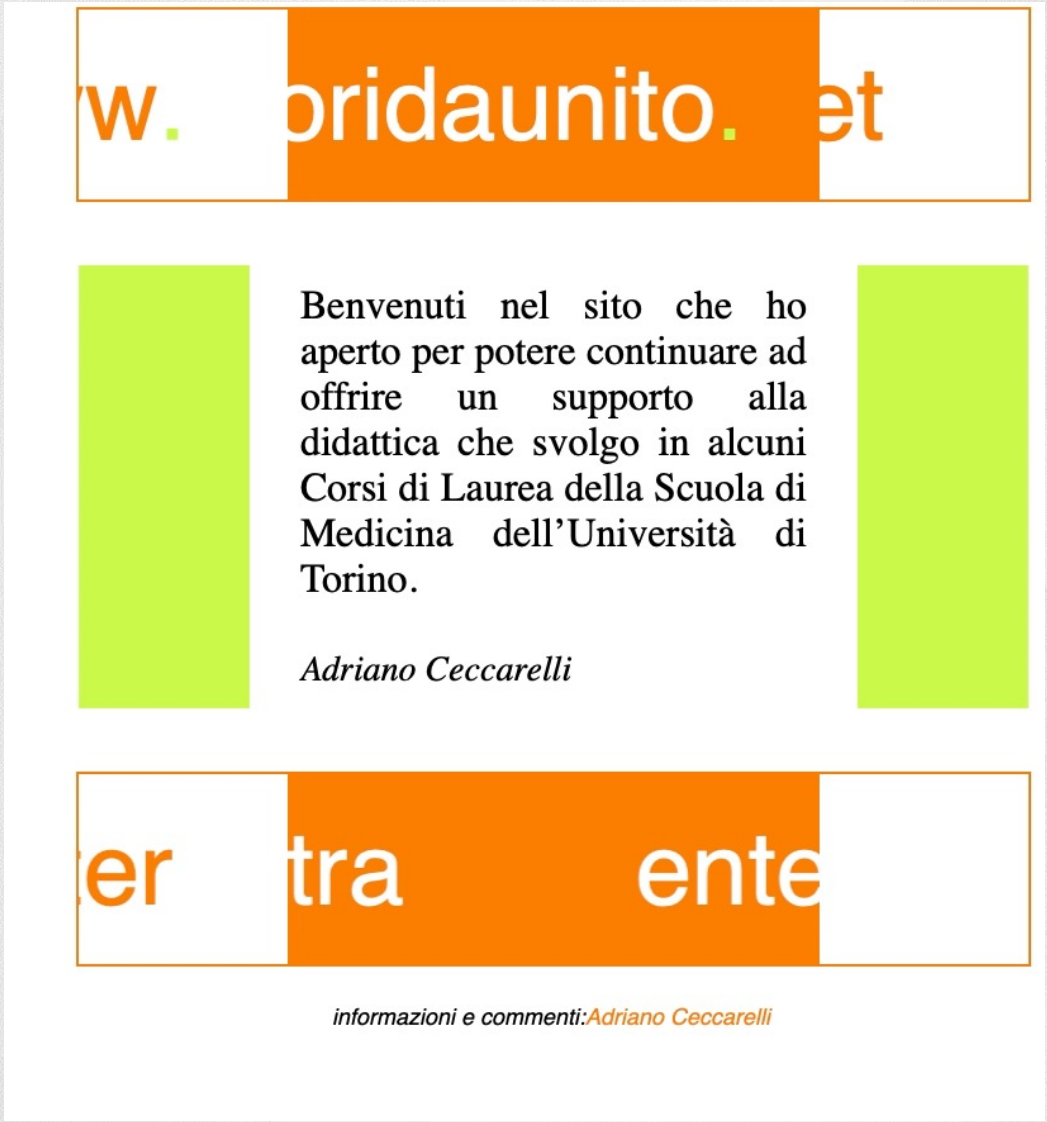
w. pridaunito. et
Benvenuti nel sito che ho aperto per potere continuare ad offrire un supporto alla didattica che svolgo in alcuni Corsi di Laurea della Scuola di Medicina dell'Università di Torino.
Adriano Ceccarelli
er tra ente
informazioni e commenti:Adriano Ceccarelli

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molgen
moodle
forum

perchè

Da qualche tempo il servizio di web-hosting dell'Ateneo è stato dismesso, senza che però si trovassero alternative valide per il mantenimento di interi siti dedicati alla didattica, come questo. Infatti il materiale che viene collocato sul web e reso pubblico da parte dei docenti si limita prevalentemente a pagine personali, contenenti un profilo di carriera scientifica ed accademica, eventualmente un curriculum disponibile per il download, ed eventualmente anche una fotografia, soprattutto se si è fotogenici. Il materiale didattico, quando c'è, consiste quasi sempre solo in piccole collezioni di slides in vari formati. E' logico quindi che i casi in cui invece i contenuti si differenziano notevolmente da quelli descritti non abbiano giustificato, poichè rari, lo sforzo di trovare delle soluzioni adeguate. Spero che in futuro si possa ritornare all'interno del dominio unito.it, anche se ne dubito, dato che unito.it sta uscendo da se stesso, se così si può dire, per mettersi nelle braccia assai più capienti e robuste di altri, famosi, fornitori di servizi.

Biologia cellulare

Cenni di struttura delle biomolecole

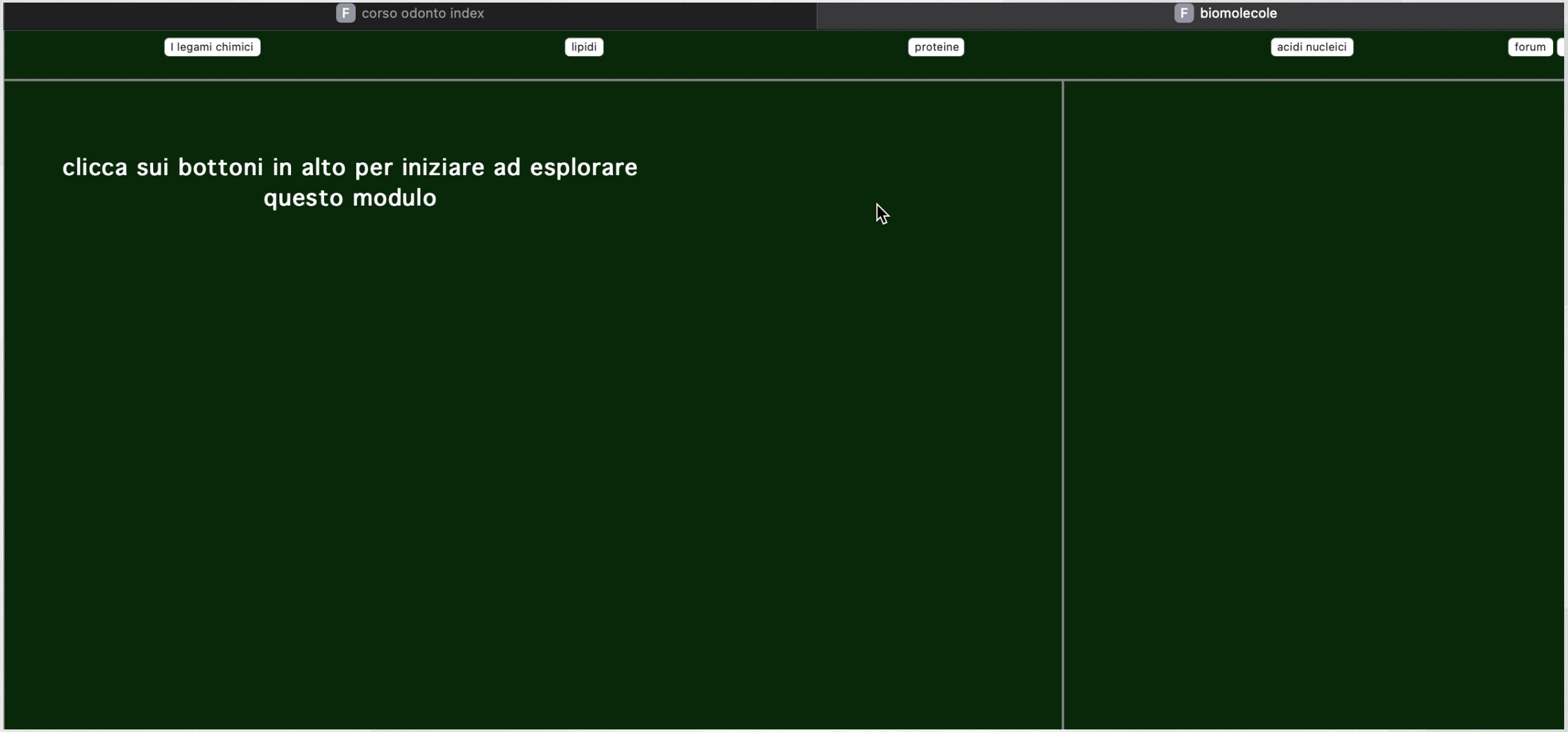
- generalità
- lipidi
- polisaccaridi
- proteine
- acidi nucleici

La cellula

- La cellula come unità
- Proprietà fondamentali delle cellule
- Architettura cellulare

Le reazioni chimiche della cellula

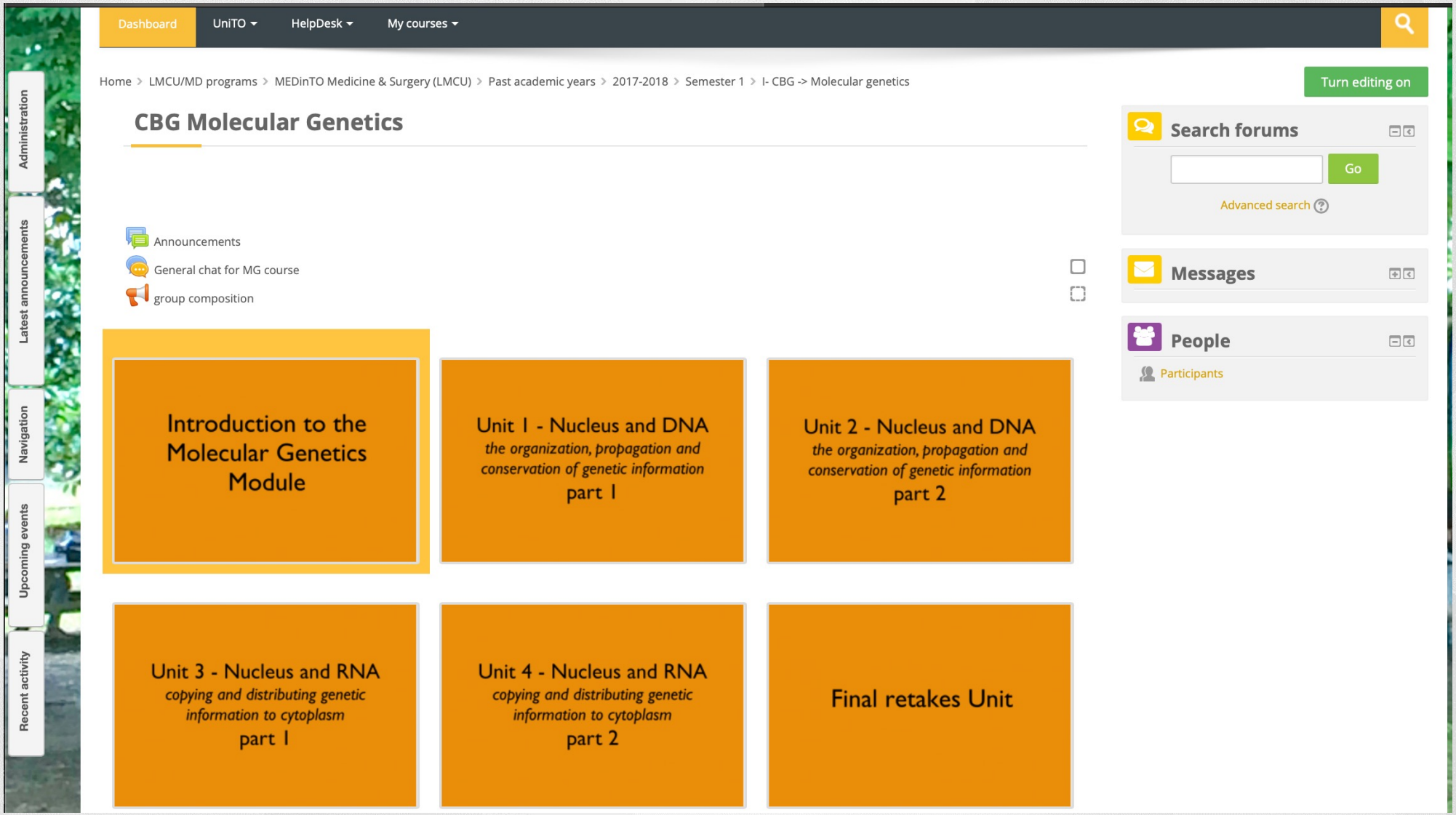
- Termodinamica e vita
- accoppiamento delle reazioni eso- ed endoergoniche
- gli enzimi


F corso odonto index
F biomolecole
I legami chimici
lipidi
proteine
acidi nucleici
forum
clicca sui bottoni in alto per iniziare ad esplorare questo modulo

	vantaggi	svantaggi
contenuti di tipo digitale di tipo sito web usati a lezione forniti come materiale di studio	• upgrade continuo • fruibile da vari tipi di dispositivi	• coincidenza di contenuti (lezioni/materiali online) disincentivante
valutazione test intermedio e finale non strutturato quiz strutturati a fine corso	• buona rilevazione di performances di tipo non nozionistico	• tempo-docente per correzione test non strutturati eccessivo (30'/studente/elaborato) • questo formato di corso non prevede tempo per esercizi su quiz finale

Studenti poco motivati e concentrati sugli aspetti nozionistici

Uso di moodle solo a scopo valutativo


Dashboard
UniTO
HelpDesk
My courses
Home > LMCU/MD programs > MEDinTO Medicine & Surgery (LMCU) > Past academic years > 2017-2018 > Semester 1 > I- CBG -> Molecular genetics
Turn editing on
Administration
Latest announcements
Navigation
Upcoming events
Recent activity
CBG Molecular Genetics
Announcements
General chat for MG course
group composition
Introduction to the Molecular Genetics Module
Unit 1 - Nucleus and DNA
the organization, propagation and conservation of genetic information
part 1
Unit 2 - Nucleus and DNA
the organization, propagation and conservation of genetic information
part 2
Unit 3 - Nucleus and RNA
copying and distributing genetic information to cytoplasm
part 1
Unit 4 - Nucleus and RNA
copying and distributing genetic information to cytoplasm
part 2
Final retakes Unit
Search forums
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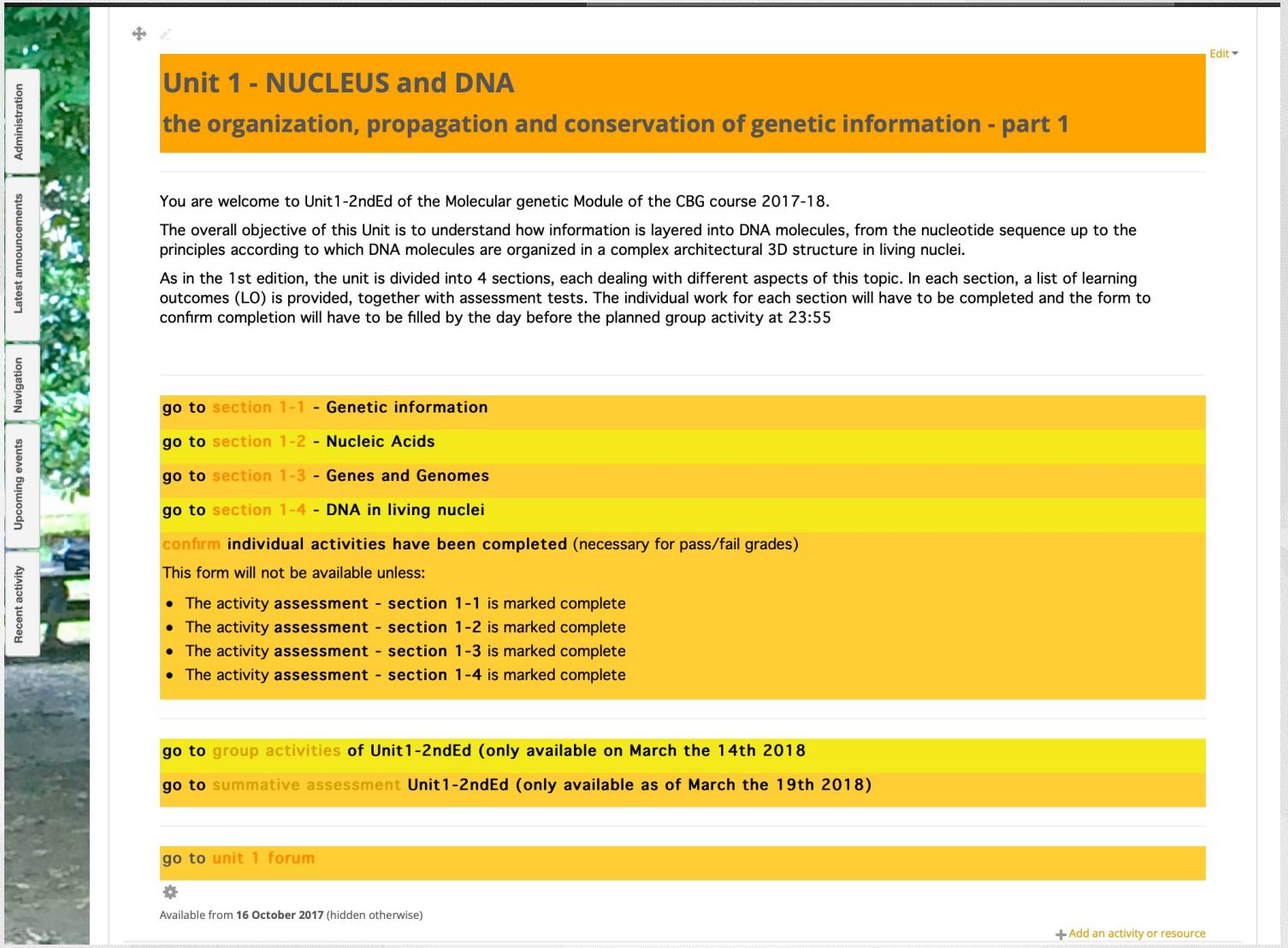
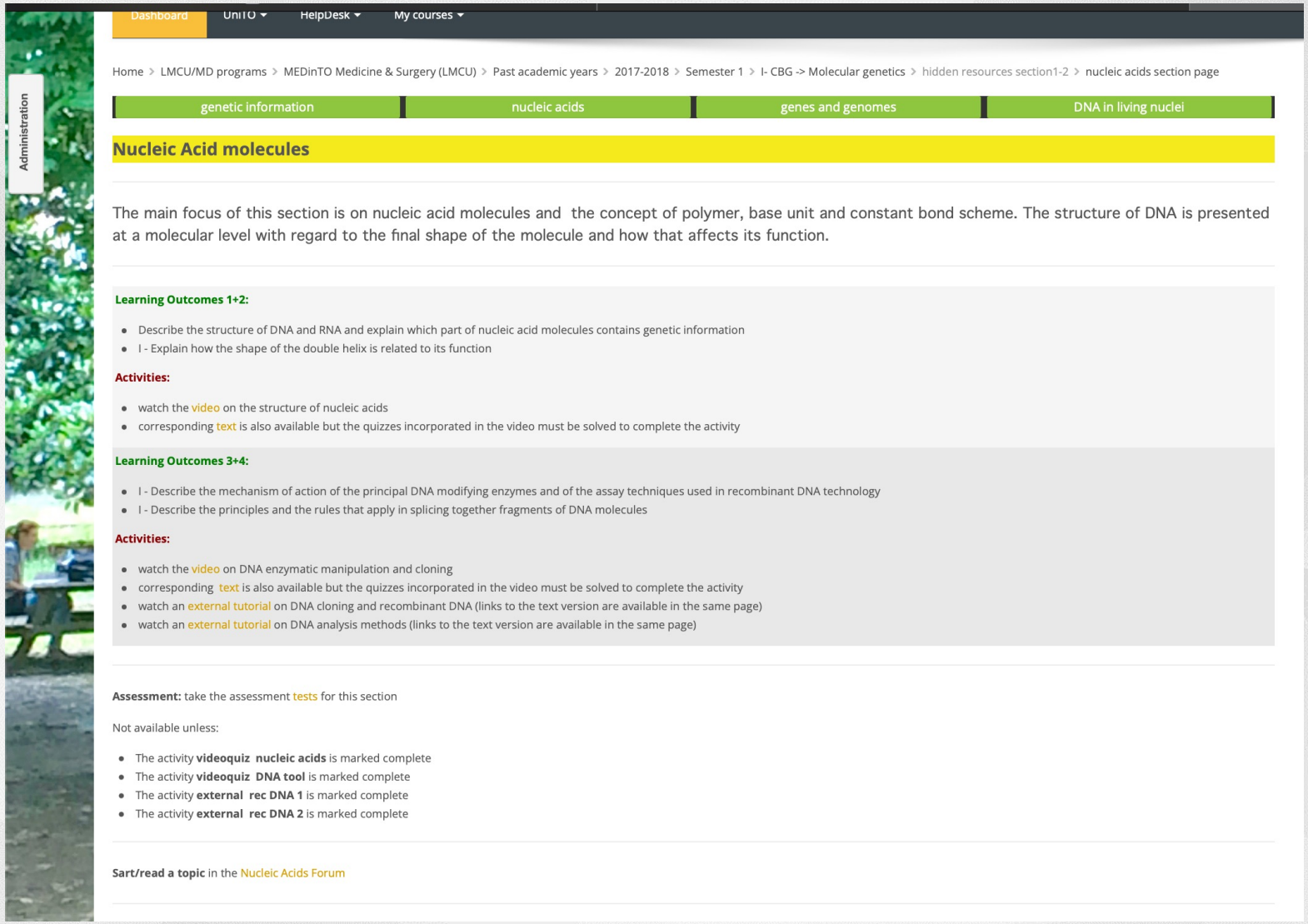
Messages
People
Participants


Administration
Latest announcements
Navigation
Upcoming events
Recent activity
Edit
Unit 1 - NUCLEUS and DNA
the organization, propagation and conservation of genetic information - part 1
You are welcome to Unit1-2ndEd of the Molecular genetic Module of the CBG course 2017-18.
The overall objective of this Unit is to understand how information is layered into DNA molecules, from the nucleotide sequence up to the principles according to which DNA molecules are organized in a complex architectural 3D structure in living nuclei.
As in the 1st edition, the unit is divided into 4 sections, each dealing with different aspects of this topic. In each section, a list of learning outcomes (LO) is provided, together with assessment tests. The individual work for each section will have to be completed and the form to confirm completion will have to be filled by the day before the planned group activity at 23:55
go to section 1-1 - Genetic information
go to section 1-2 - Nucleic Acids
go to section 1-3 - Genes and Genomes
go to section 1-4 - DNA in living nuclei
confirm individual activities have been completed (necessary for pass/fail grades)
This form will not be available unless:
The activity assessment - section 1-1 is marked complete
The activity assessment - section 1-2 is marked complete
The activity assessment - section 1-3 is marked complete
The activity assessment - section 1-4 is marked complete
go to group activities of Unit1-2ndEd (only available on March the 14th 2018
go to summative assessment Unit1-2ndEd (only available as of March the 19th 2018)
go to unit 1 forum
Available from 16 October 2017 (hidden otherwise)
Add an activity or resource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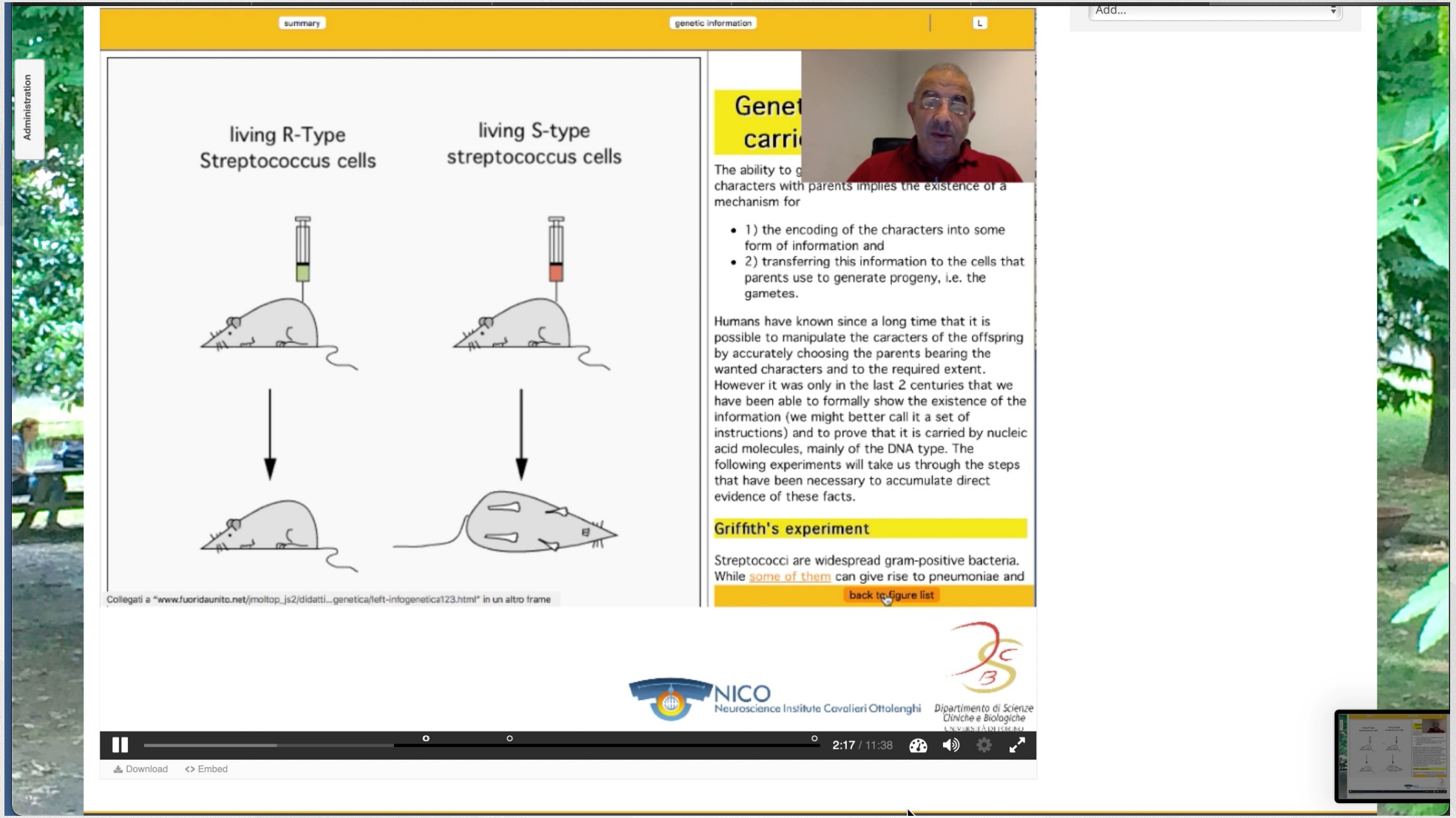
Home › LMCU/MD programs › MEDinTO Medicine & Surgery (LMCU) › Past academic years › 2017-2018 › Semester 1 › I- CBG -> Molecular genetics › hidden resources section1-2 › nucleic acids section page
genetic information
nucleic acids
genes and genomes
DNA in living nuclei
Nucleic Acid molecules
The main focus of this section is on nucleic acid molecules and the concept of polymer, base unit and constant bond scheme. The structure of DNA is presented at a molecular level with regard to the final shape of the molecule and how that affects its function.
Learning Outcomes 1+2:
Describe the structure of DNA and RNA and explain which part of nucleic acid molecules contains genetic information
I - Explain how the shape of the double helix is related to its function
Activities:
watch the video on the structure of nucleic acids
corresponding text is also available but the quizzes incorporated in the video must be solved to complete the activity
Learning Outcomes 3+4:
I - Describe the mechanism of action of the principal DNA modifying enzymes and of the assay techniques used in recombinant DNA technology
I - Describe the principles and the rules that apply in splicing together fragments of DNA molecules
Activities:
watch the video on DNA enzymatic manipulation and cloning
corresponding text is also available but the quizzes incorporated in the video must be solved to complete the activity
watch an external tutorial on DNA cloning and recombinant DNA (links to the text version are available in the same page)
watch an external tutorial on DNA analysis methods (links to the text version are available in the same page)
Assessment: take the assessment tests for this section
Not available unless:
The activity videoquiz nucleic acids is marked complete
The activity videoquiz DNA tool is marked complete
The activity external rec DNA 1 is marked complete
The activity external rec DNA 2 is marked complete
Sart/read a topic in the Nucleic Acids Forum


summary
genetic information
Administration
living R-Type Streptococcus cells
living S-type streptococcus cells
Genet
carri
The ability to g
characters with parents implies the existence of a mechanism for
1) the encoding of the characters into some form of information and
2) transferring this information to the cells that parents use to generate progeny, i.e. the gametes.
Humans have known since a long time that it is possible to manipulate the caracters of the offspring by accurately choosing the parents bearing the wanted characters and to the required extent. However it was only in the last 2 centuries that we have been able to formally show the existence of the information (we might better call it a set of instructions) and to prove that it is carried by nucleic acid molecules, mainly of the DNA type. The following experiments will take us through the steps that have been necessary to accumulate direct evidence of these facts.
Griffith's experiment
Streptococci are widespread gram-positive bacteria. While some of them can give rise to pneumoniae and
back to figure list
Collegati a "www.fuoridaunito.net/jmoltop_js2/didatti...genetica/left-infogenetica123.html" in un altro frame
NICO Neuroscience Institute Cavalieri Ottolenghi
Dipartimento di Scienze Cliniche e Biologiche
2:17 / 11:38
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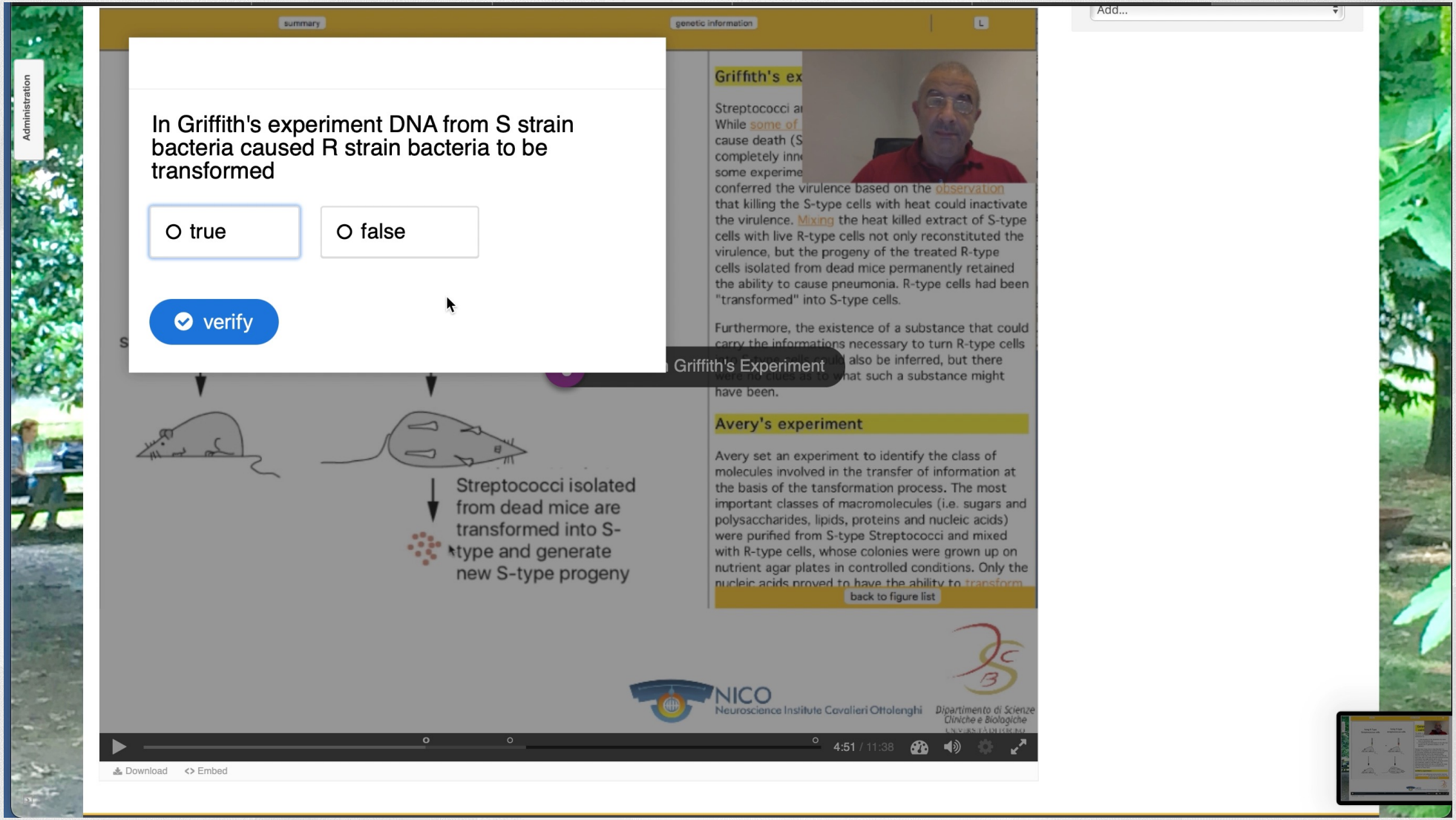
summary
genetic information
Administration
In Griffith's experiment DNA from S strain bacteria caused R strain bacteria to be transformed
true
false
verify
Griffith's Experiment
Griffith's ex
Streptococci a
While some of
cause death (S
completely inn
some experime
conferred the virulence based on the observation that killing the S-type cells with heat could inactivate the virulence. Mixing the heat killed extract of S-type cells with live R-type cells not only reconstituted the virulence, but the progeny of the treated R-type cells isolated from dead mice permanently retained the ability to cause pneumonia. R-type cells had been "transformed" into S-type cells.
Furthermore, the existence of a substance that could carry the informations necessary to turn R-type cells
also be inferred, but there
were no clues as to what such a substance might have been.
Avery's experiment
Avery set an experiment to identify the class of molecules involved in the transfer of information at the basis of the tansformation process. The most important classes of macromolecules (i.e. sugars and polysaccharides, lipids, proteins and nucleic acids) were purified from S-type Streptococci and mixed with R-type cells, whose colonies were grown up on nutrient agar plates in controlled conditions. Only the nucleic acids proved to have the ability to transform
back to figure list
Streptococci isolated from dead mice are transformed into S-type and generate new S-type progeny
NICO
Neuroscience Institute Cavalieri Ottolenghi
Dipartimento di Scienze Cliniche e Biologiche
4:51 / 11:38
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summative unit 3

Q1

Operon regulation can be of the inducible ore repressible type, while at the same time operons can fall under positive or negative control. Explain how each type of regulation can be achieved by either type of control. Drawing a scheme may help and is acceptable, but text will be needed anyway to explain the scheme (400 words)

Q2

Bacteria use operons to up and down regulate protein production based on their metabolic needs and environment. Keeping homeostasis in mind, which of the two types of operon is likely to be used for catabolic and which for anabolic pathways? Explain your reasoning. (400 words)

Please find attached the file with the grading rubric.

unit3 rubric.pdf

Grading summary

Participants	17
Drafts	0
Submitted	15
Needs grading	0
Due date	Tuesday, 15 May 2018, 11:55 PM
Time remaining	Assignment is due

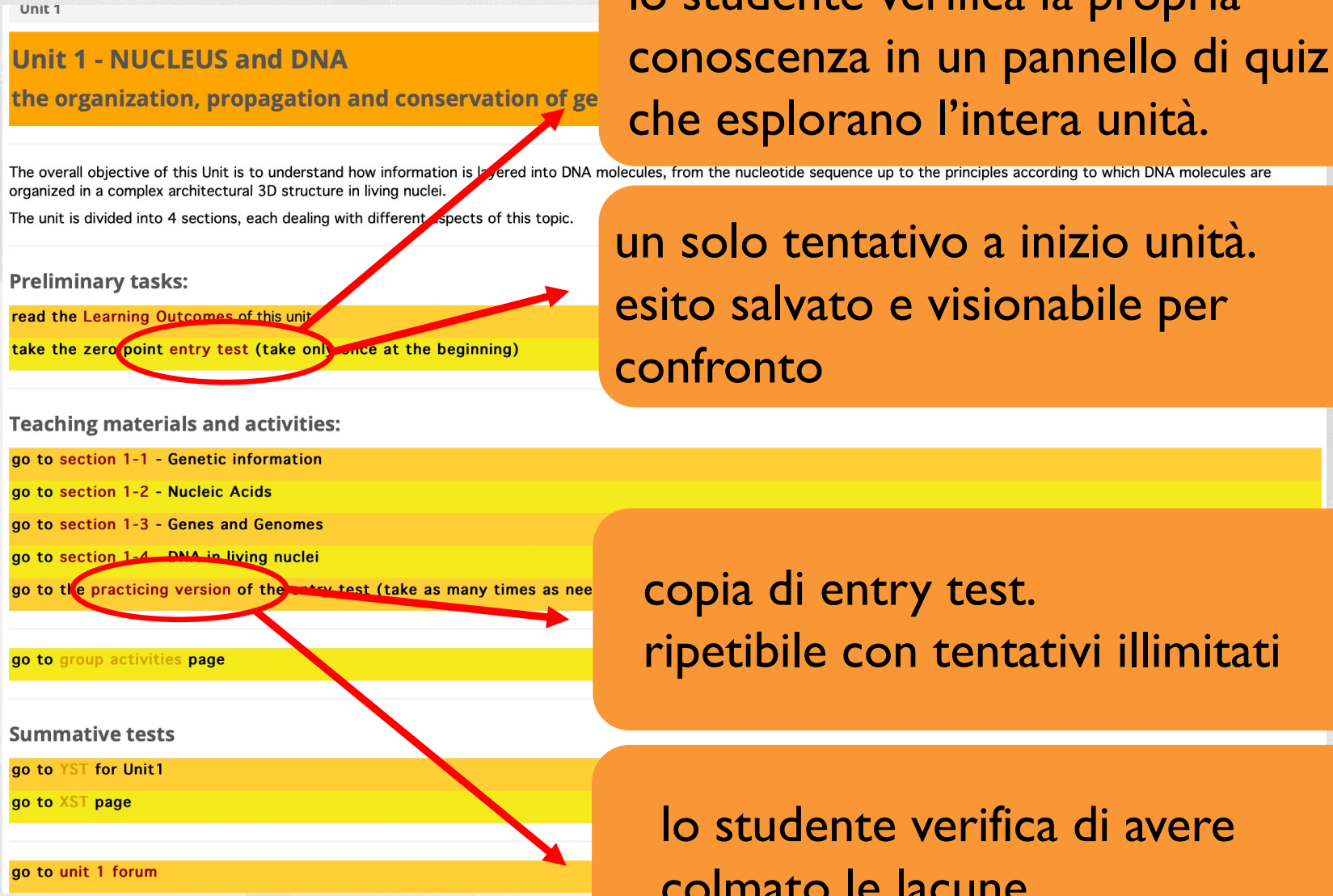
View all submissions Grade

CATEGORY	4	3	2	1	total points available
language-mechanics	No grammatical, spelling or punctuation errors.	Almost no grammatical, spelling or punctuation errors	A few grammatical spelling, or punctuation errors.	Many grammatical, spelling, or punctuation errors.	
pts	2	1,5	1	0,5	**2**
language-content	All words chosen with accuracy. No use of words or verbs with wrong meaning	Almost all words chosen with accuracy. Almost no use of words or verbs with wrong meaning	A few words or verbs with a wrong meaning are used	Many words or verbs with a wrong meaning are used	
pts	2	1,5	1	0,5	**2**
Organization	Information is very organized with well-constructed paragraphs and subheadings.	Information is organized with well-constructed paragraphs.	Information is organized, but paragraphs are not well-constructed.	The information appears to be disorganized.	
pts	up to 7-8	up to 5-6	up to 3-4	up to 1-2	**8,00**
Amount of Information	All topics are addressed with at least 2 sentences about each.	Not all topics are addressed - at least 2 sentences about each.	Not all topics are addressed - 1 sentence about each.	None of the topics were addressed.	
pts	up to 7-8	up to 5-6	up to 3-4	up to 1-2	**8,00**
Quality of Information	Information clearly relates to the main topic. It includes several supporting examples.	Information clearly relates to the main topic. It provides 1-2 supporting examples.	Information clearly relates to the main topic. No examples are given.	Information has little or nothing to do with the main topic.	
pts	up to 9-10	up to 7-8	up to 4-6	up to 1-3	**10,00**
TOTAL					**30**

	vantaggi	svantaggi
materiali precedentemente realizzati come sito ora usati per realizzare videolezioni con quiz	• recupero parziale lavoro già svolto • i quiz rendono le videolezioni interattive • autonomia dello studente nella fruizione/somministrazione dei materiali	• autonomia dello studente nella fruizione/somministrazione dei materiali
valutazione Test finali non strutturati basati su svolgimento attività indicate nei materiali online	• buona analisi della performance di tipo non nozionistico	• possesso di nozioni di base solo inferito. • non tutti i test riescono a porre una relazione di dipendenza • tempo/docente eccessivo

Studenti poco inclini a atteggiamento critico nei confronti del proprio apprendimento

Concetti di base non sempre acquisiti nonostante la performance finale fosse positiva (livello minimo)

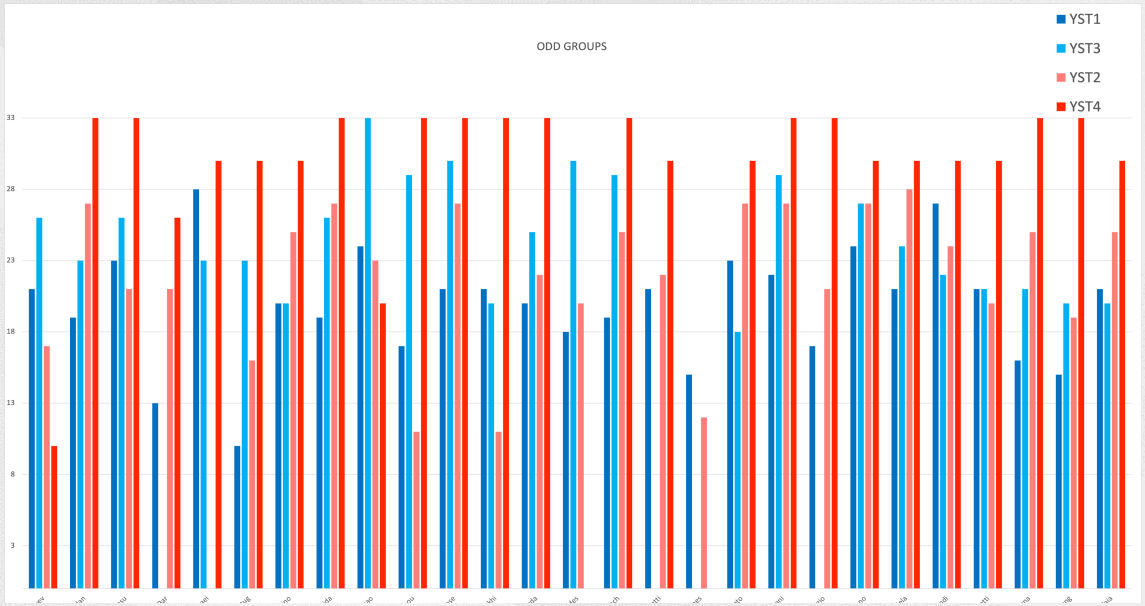


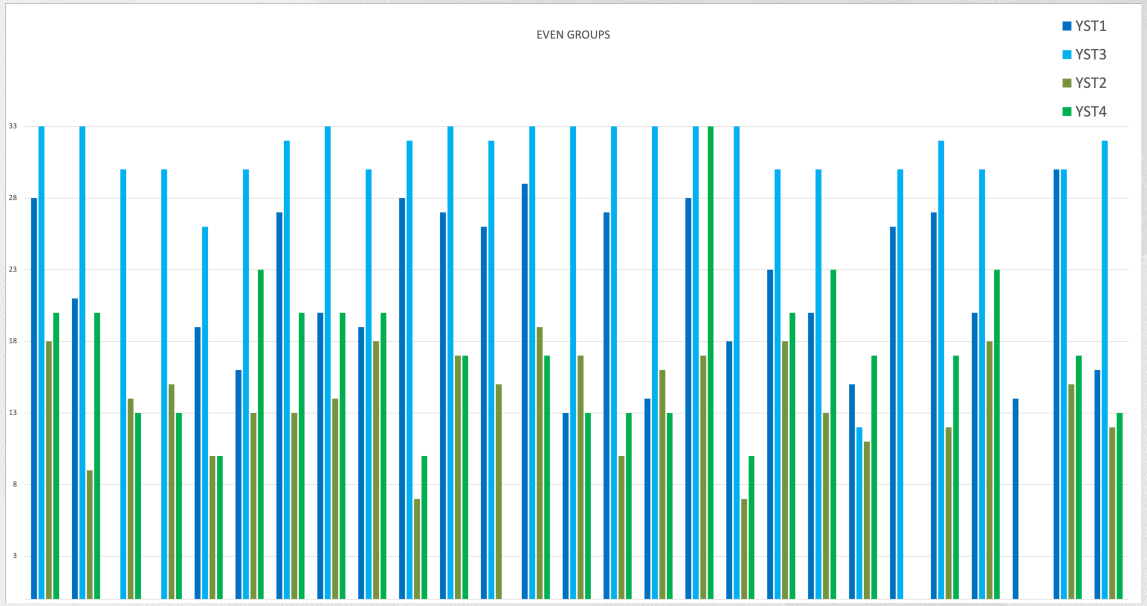
lo studente verifica la propria conoscenza in un pannello di quiz che esplorano l'intera unità.

un solo tentativo a inizio unità. esito salvato e visionabile per confronto

copia di entry test. ripetibile con tentativi illimitati

lo studente verifica di avere colmato le lacune


ODD GROUPS
YST1
YST3
YST2
YST4
33
28
23
18
13
8
3


EVEN GROUPS
YST1
YST3
YST2
YST4
33
28
23
18
13
8
3

	vantaggi	svantaggi
• disponibilità di entry/practising test per favorire la autovalutazione e dare allo studente il controllo della situazione	• controllo sul processo di apprendimento (almeno conoscenza fattuale) trasferito allo studente • tempo-docente speso in valutazione formativa si riduce	• Il pannello di quiz non è usato a scopo formativo

• Valutazione
  • Test strutturato fine unità
  • Test non strutturato fine unità
	• maggiore controllo su apprendimento nozioni di base.
	• possibilità di variare il peso di ciascuna parte sulla base di altri coefficienti
		• Alto rischio di falsare il risultato (forse in più modi)

valutazione formativa

escludere il docente dalle fasi intermedie

il docente partecipa solo ad una prima prova del processo di valutazione fornendo un punto di riferimento per l'uso delle rubriche di valutazione
le rubriche sono costruite insieme agli studenti (ove possibile) e sono comunque condivise e già disponibili al momento delle performances richieste.

combinare valutazione fra pari ed autovalutazione finale su una serie limitata di «prodotti finiti»

ogni test (non strutturato) eseguito viene sottoposto a valutazione fra pari, riceve un feedback e può essere revisionato, sulla base della interpretazione critica soggettiva del feedback ottenuto

riutilizzare valutazione tra pari e feedback per la valutazione finale

L'insieme delle revisioni dei prodotti rappresenta al tempo stesso sia il risultato della valutazione formativa sia il materiale su cui effettuare la valutazione finale. Il lavoro di feedback è incentivato dal suo effetto sul risultato finale

valutazione autentica

identificare problematiche reali il più vicine possibile al campo professionale

La identificazione può riguardare un numero limitato di problematiche. Questo potrebbe essere la misura della rilevanza di uno specifico insegnamento nell'ambito del profilo di competenze professionali del laureato.
Forse risponde alla domanda «*a cosa serve quello che insegno?*» in modo più veritiero

valutazione continua

esecuzione dei test asincrona e non controllata

Ogni test, proposto al termine di ciascuna unità didattica, è basato sulla dimostrazione di competenze mediante soluzione di problemi e richiede, oltre alla soluzione, la dimostrazione di una capacità critica di analisi del problema, individuazione delle conoscenze necessarie a risolverlo.
Gli studenti hanno accesso a tutti le fonti di informazione necessarie e sono incoraggiati a comunicare per risolvere il problema. Spesso il lavoro nasce come lavoro di gruppo

revisione dei test sulla base dei feedback ricevuti

La revisione del prodotto del test non rappresenta la seconda esecuzione di un quiz già svolto, in cui si cambiano i valori ma le formule restano le stesse. E' una nuova stesura, e deve essere corredata da testo che motiva la scelta degli argomenti oggetto revisione

è un contenitore che viene creato su una piattaforma virtuale

deve essere migliorabile fino a fine corso, secondo

le versioni intermedie dei prodotti devono restare disponibili, e le

-contiene materiali di diverse tipologie:

-termina con un documento di autovalutazione globale (sui contenuti e per competenze) in cui lo studente identifica debolezze e punti di forza, li giustifica e li spiega.

-dovrebbe essere lasciato a disposizione dei compagni sia per ricevere commenti e aiuto sia per essere usato come esempio se ritenuto utile

Mahara

Cosa vuol dire? «pensare»… «il pensare»… «pensiero» (maori)

Che origini ha?

Nato come prodotto di un progetto di sviluppo di software per gestione di ePortfolios, finanziato da:
New Zealand's Tertiary Education Commission's e-learning Collaborative Development Fund (eCDF),
di cui fanno parte *Massey University*, *Auckland University of Technology*, *The Open Polytechnic of New Zealand*, *Victoria University of Wellington*
E successivamente dal **New Zealand's Ministry of Education** e da **Open Polytechnic**

Dove lo trovo? https://www.mahara.org

Che caratteristiche ha?

Student centered

Progettato per essere student-centered (a differenza di molti LMS institution-centered)

L'utente controlla quali oggetti e quali informazioni (artefatti-artefacts) rendere visibili

Gli oggetti sono raccolti in pagine (collezioni di oggetti) e le pagine possono a loro volta essere parte di collezioni di pagine

La condivisione può essere con il pubblico (mondo o utenti selezionati) o con membri di comunità interne a mahara

I contenuti possono essere aggiunti ad una watchlist per ricevere avvisi ogniqualvolta vengono modificati

L'autore può sottomettere il proprio portfolio a valutazione da parte di un tutor, in forma di uno snapshot sia del formato sia del contenuto di quel momento

Può ospitare journals/blogs

Permette di strutturare CV

Che caratteristiche ha?

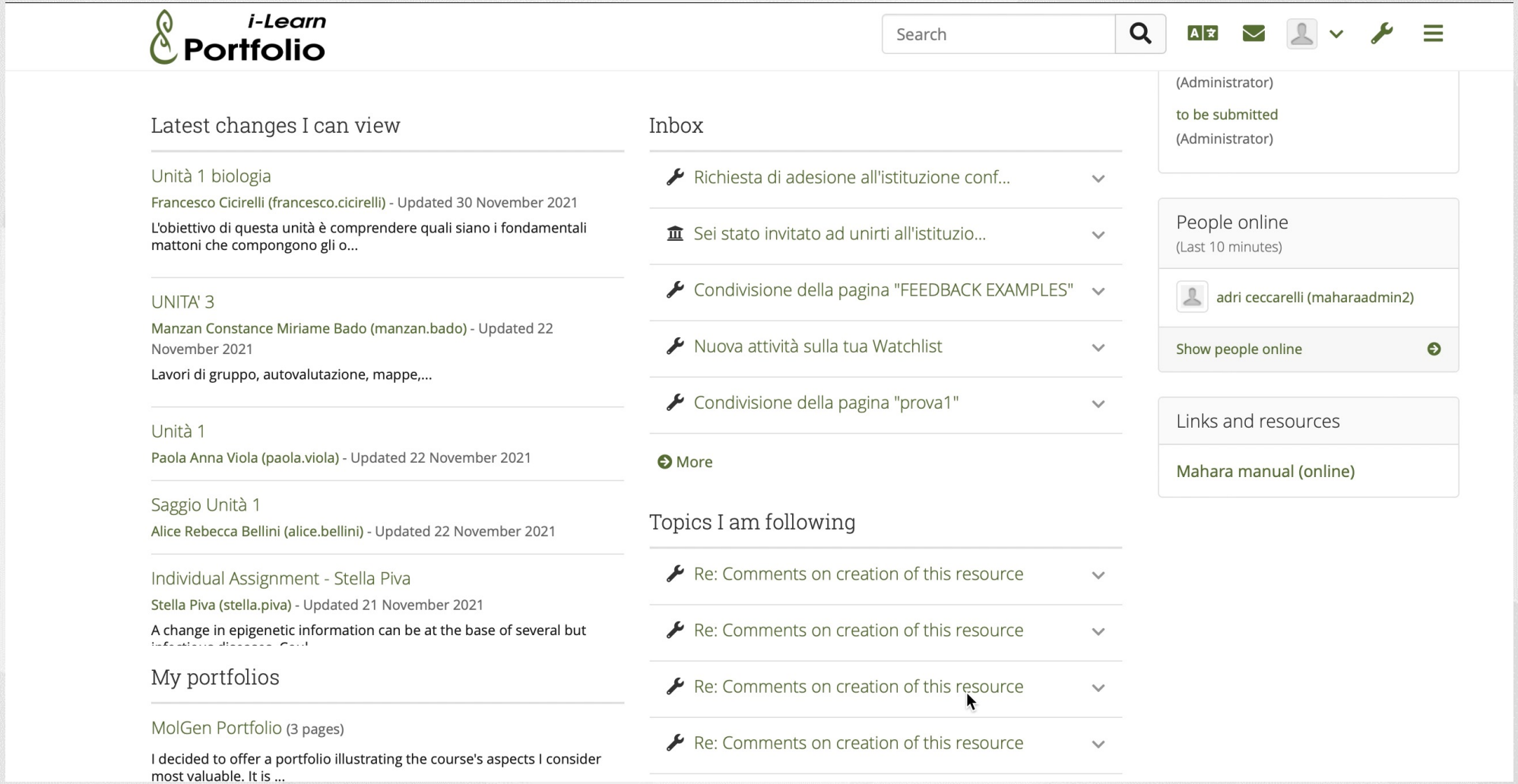
Administration and interoperability

Dotato di report-builder per la costruzione di vari tipi di report (sito, istituzione, gruppo, utente)

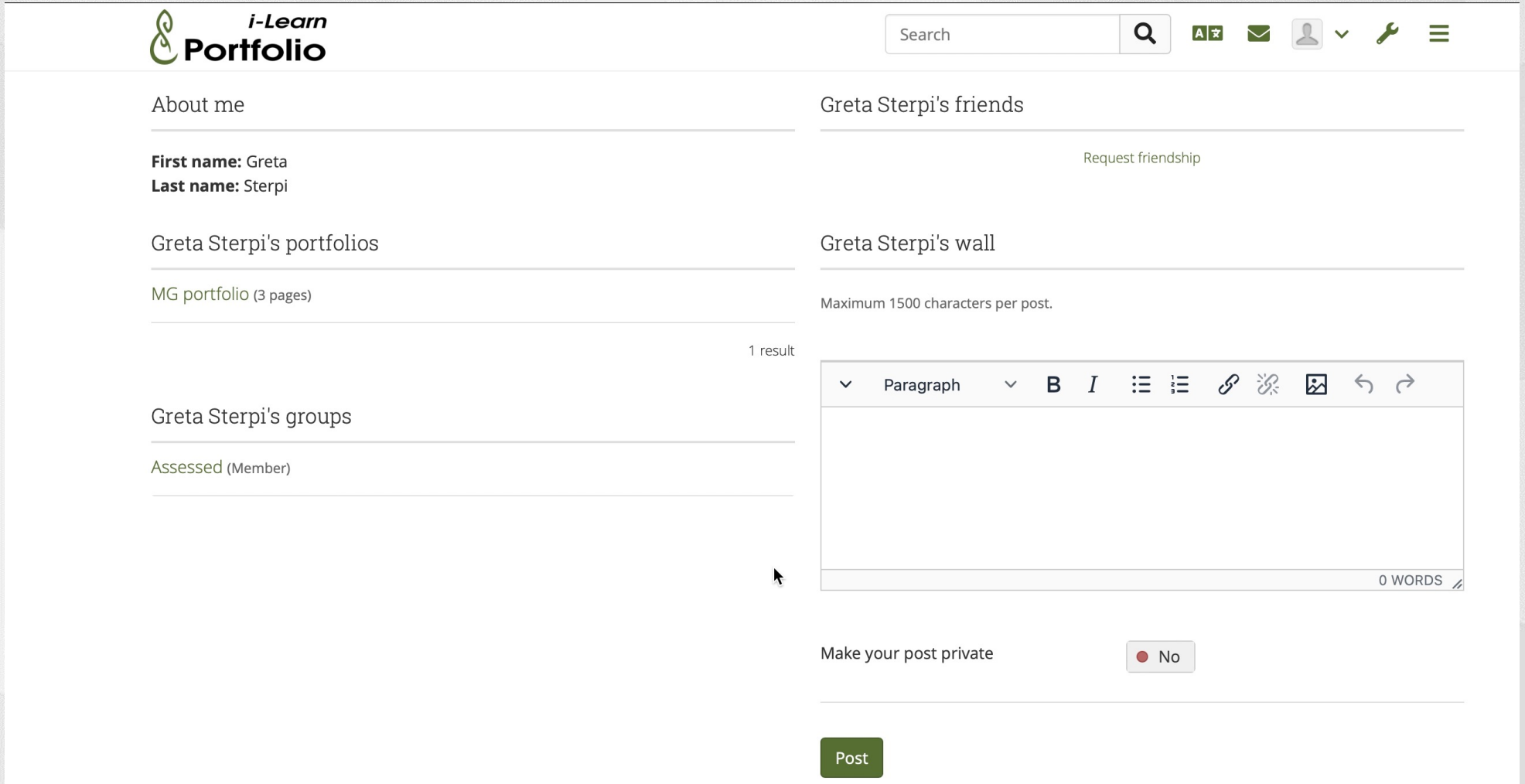
Connessione a LMS con LTI

Customizzabile rispetto a: lingue, temi, metodi di autenticazione, numero di organizzazioni afferente alla medesima istanza, etc

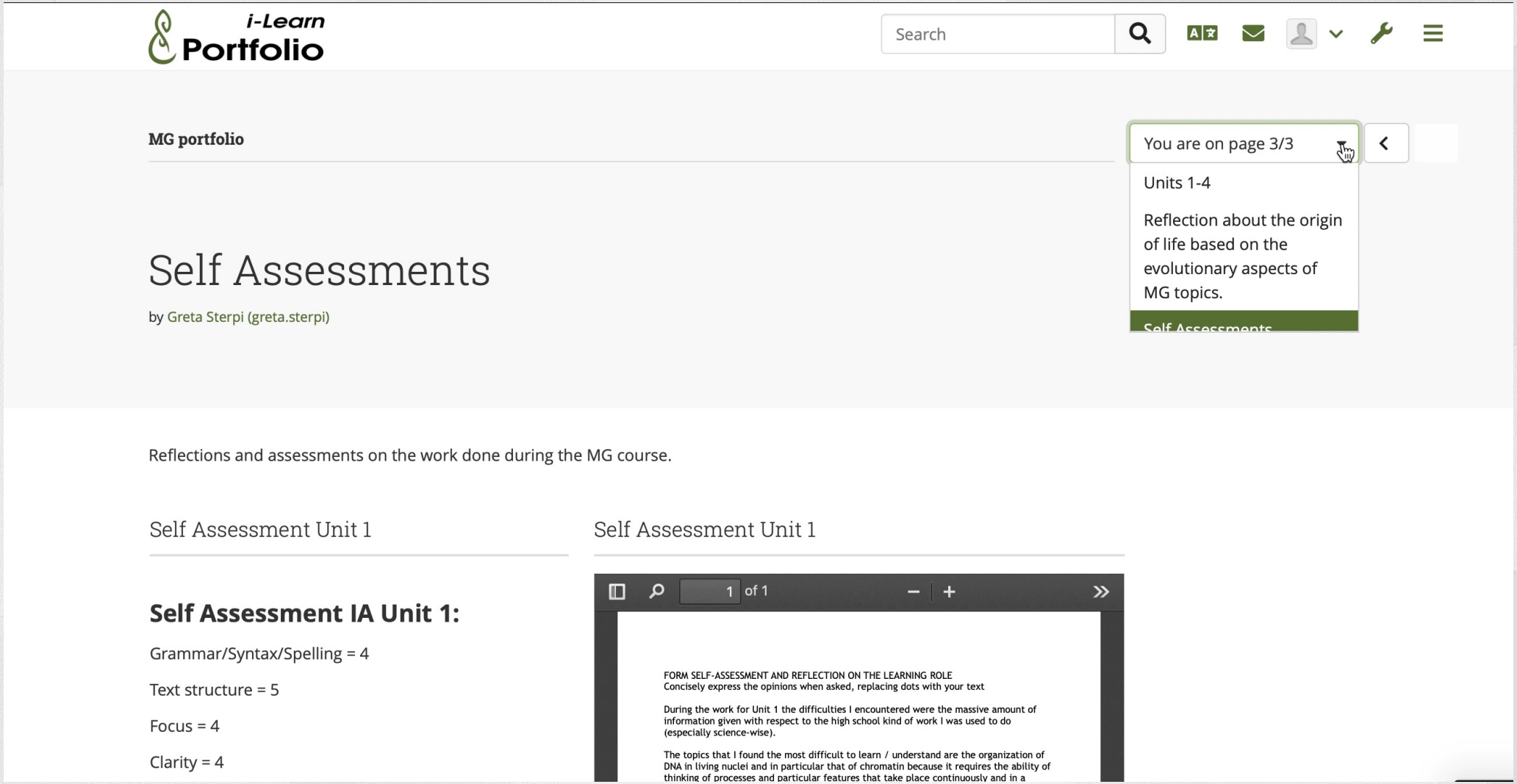
Come si presenta?



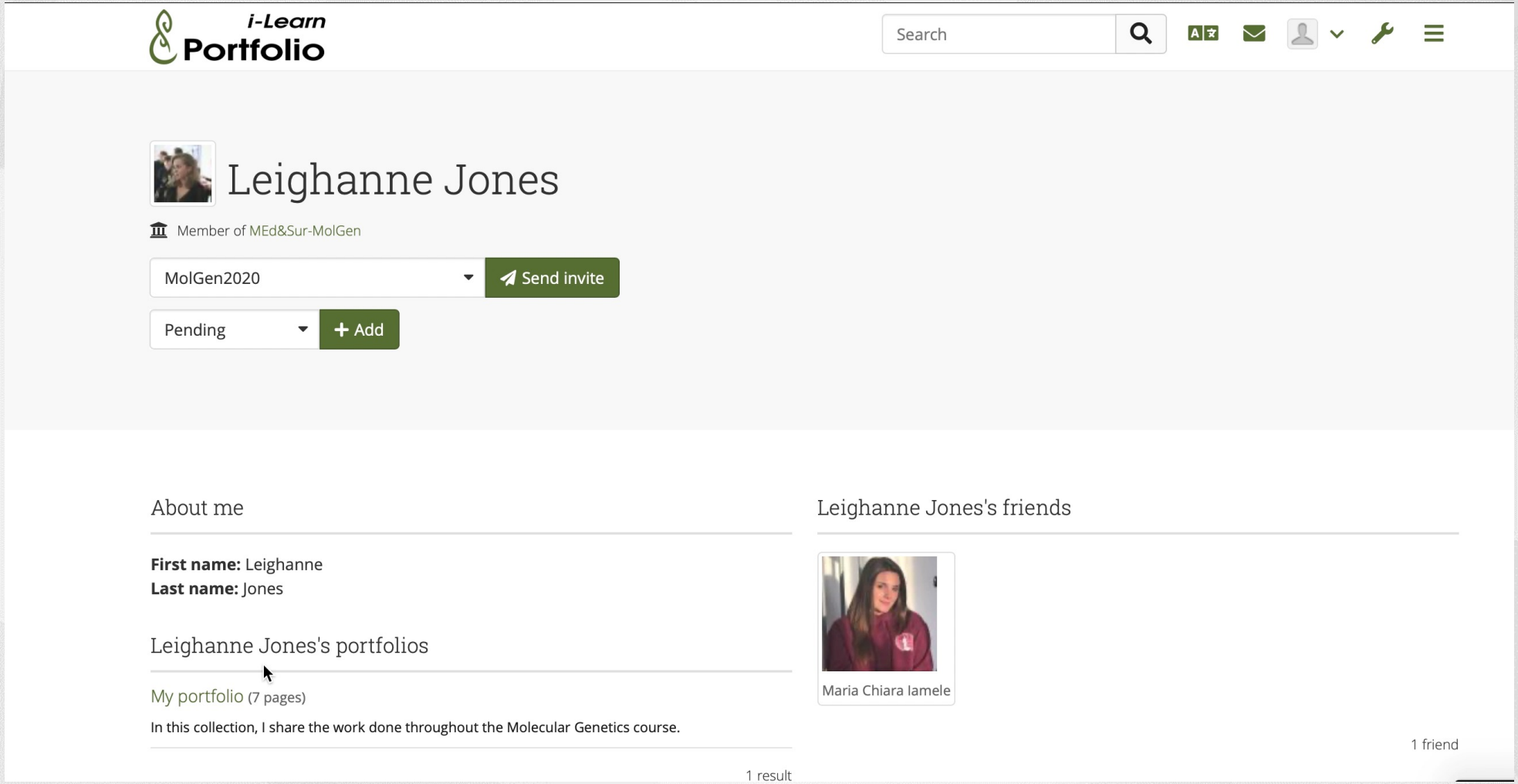
Come si presenta?



Come si presenta?



Come si presenta?



Nuovi corsi (2020-21) strutturati con moodle, come corsi precedenti:

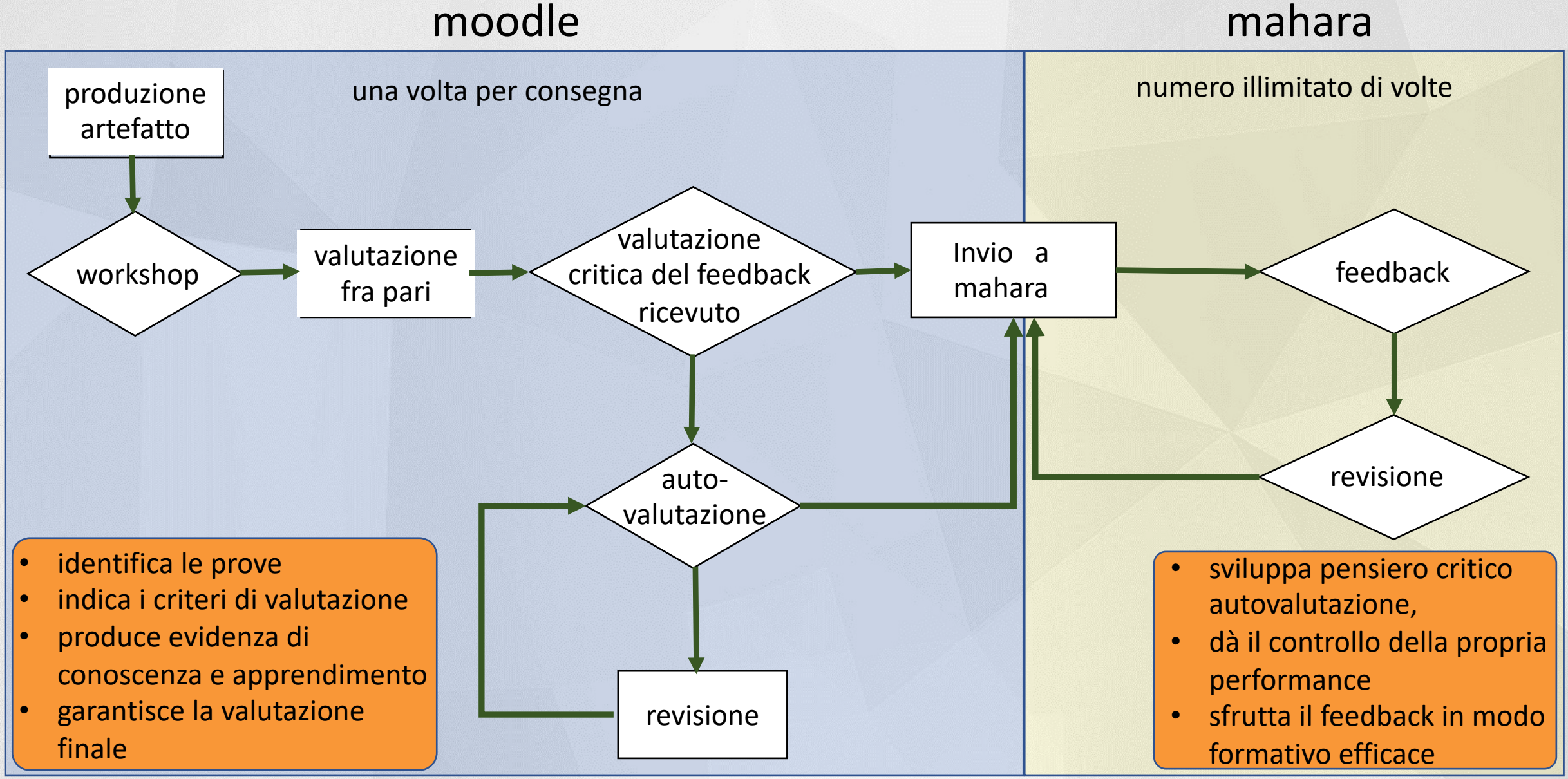
- 4 unità
- Videolezioni con quiz – eliminati i salti condizionati nei video
- Pannelli di quiz facoltativi a disposizione per autovalutazione
- Problemi di fine unità svolti come workshop
- Valutazione fra pari e rilascio di feedback secondo rubriche

Moodle utilizzato per:

- Somministrare materiali
- Somministrare quiz strutturati di autovalutazione
- Raccogliere il prodotto dei test non strutturati
- Mediare la valutazione fra pari
- Redistribuire i risultati ed i feedback

Mahara (su server di di.unito.it)

- Collegato a moodle con LTI
- Utenti moodle accedono da moodle con autenticazione automatica
- Accoglie i prodotti processati su moodle, prima o dopo feedback e revisioni
- Permette agli studenti di avere una visione delle esperienze dei compagni in modo immediato ed efficace per capire «*cosa serve per fare bella figura*»
- Permette di lasciare ulteriori feedback non condizionati dai parametri di una rubrica
- Stimola gli studenti a individuare modalità/oggetti con cui dimostrare le proprie competenze

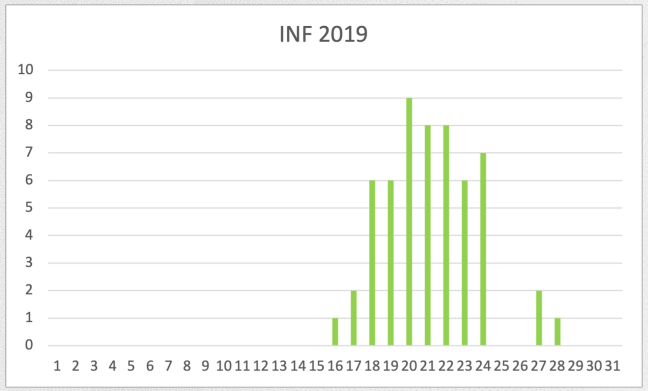

moodle
mahara
produzione artefatto
una volta per consegna
numero illimitato di volte
workshop
valutazione fra pari
valutazione critica del feedback ricevuto
Invio a mahara
feedback
auto-valutazione
revisione
revisione
identifica le prove
indica i criteri di valutazione
produce evidenza di conoscenza e apprendimento
garantisce la valutazione finale
sviluppa pensiero critico autovalutazione,
dà il controllo della propria performance
sfrutta il feedback in modo formativo efficace

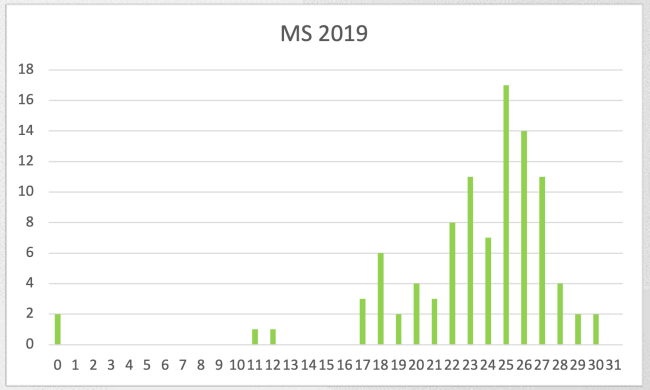
Analisi dei risultati

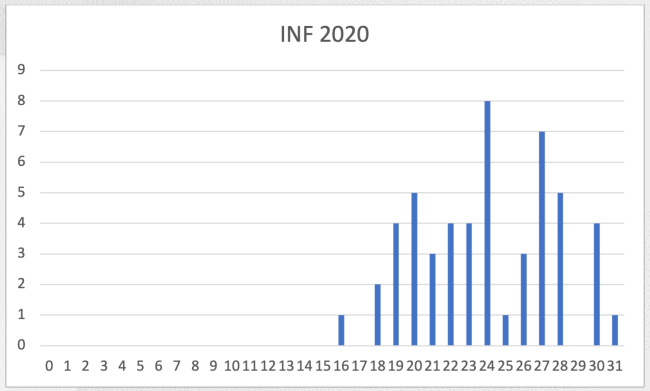
- Confronto fra il profitto di due coorti (2019 e 2020) in due corsi distinti
  - Biologia cellulare (CdS Infermieristica - 65 iscritti max)
  - Molecular Genetics – (Cds Medicine & Surgery - 102 iscritti max)

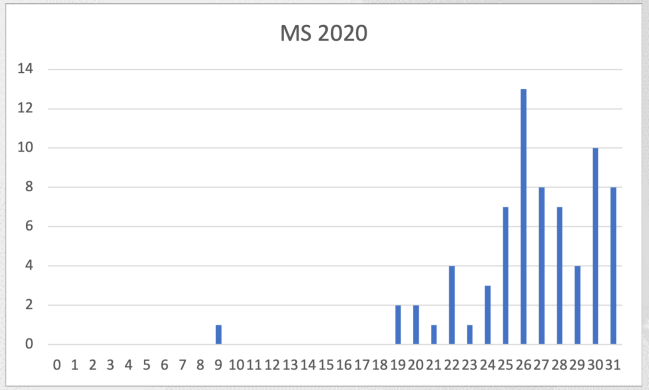
- Analisi della distribuzione dei voti conseguiti immediatamente dopo fine corso (problema immatricolazioni tardive)

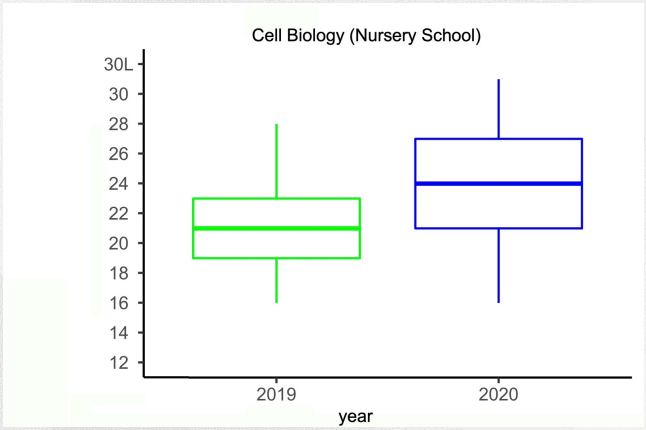
- (solo per un corso) Confronto fra alcune domande chiave di un questionario somministrato a fine corso (per sopperire alle gravi lacune di EduMeter…)

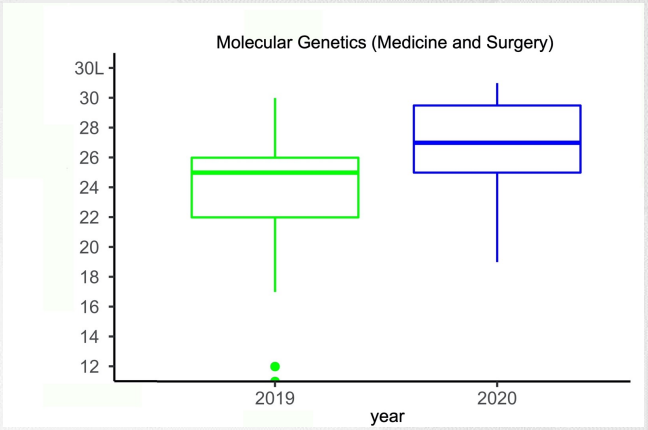

INF 2019


MS 2019


INF 2020


MS 2020


Cell Biology (Nursery School)
30L
30
28
26
24
22
20
18
16
14
12
2019
2020
year


Molecular Genetics (Medicine and Surgery)
30L
30
28
26
24
22
20
18
16
14
12
2019
2020
year

The feedback has been helpful in improving my performance in the assignments that followed it

Response	Average	Total
Yes	56%	14
No	44%	11
Total	100%	25/25

Response	Average	Total
Yes	97%	28
No	3%	1
Total	100%	29/29

The possibility to experiment different metodologies in different modules was _____ to the success of the course

Response	Average	Total
useful	20%	5
detrimental	32%	8
not relevant	48%	12
Total	100%	25/25

Response	Average	Total
useful	76%	22
detrimental	17%	5
not relevant	7%	2
Total	100%	29/29

Does the professor try to stimulate your interest for this subject?

Response	Average	Total
Yes	88%	22
No	12%	3
Total	100%	25/25

Response	Average	Total
Yes	100%	29
No		0
Total	100%	29/29

Does the professor succeed in stimulating your interest for this subject?

Response	Average	Total
Yes	36%	9
No	64%	16
Total	100%	25/25

Response	Average	Total
Yes	86%	25
No	14%	4
Total	100%	29/29

Does the professor clearly teach way to the understanding of the contents of the course?

Response	Average	Total
Yes	28%	7
No	72%	18
Total	100%	25/25

Response	Average	Total
Yes	79%	23
No	21%	6
Total	100%	29/29

Were you interested in the contents of this course before it started?

Response	Average	Total
Yes	72%	21
No	28%	8
Total	100%	29/29

Response	Average	Total
Yes	76%	19
No	24%	6
Total	100%	25/25

Were you interested in the contents of this course when you reached the end?

Response	Average	Total
Yes	44%	11
No	56%	14
Total	100%	25/25

Response	Average	Total
Yes	90%	26
No	10%	3
Total	100%	29/29

You have 15 lines to write any comment you might think useful to clarify your answers, as well as to add something you feel as relevant but that was not included in the questions.

You have 15 lines to write any comment you might think useful to clarify your answers, as well as to add something you feel as relevant but that was not included in the questions.

Response

the method of learning is perfect.
the examination system was confusing and not fair though!

You have 15 lines to write any comment you might think useful to clarify your answers, as well as to add something you feel as relevant but that was not included in the questions.

Response

The MG course could be managed better if we were in presence, but I think that the teacher managed it in a good manner. He was always available even if somebody felt a lot disoriented or did not understand how to build or modify the portfolio.

I really appreciated the ideas of the professor to try to go beyond the usual way of teaching and evaluating the learning process of a student. However the course risulted difficult to be followed because of the complications caused by the late enrollement. Unfortunately following 4 different professors, all with different teaching methods, heavely disoriented me. In particular choosing to use different exam evaluations, different online platforms and different type of lectures (e.g. live, non live, with assesments without assesments) was detrimental for students who just entered the university world. In conclusion, this course would have been really stimulating if the way of teaching of the 4 professors would have been all the same mainly because of the confusion that this provoked to students of the first semester of the first year.

About question 48: I and some of my friends used to ask for more explanations in the online meetings during lectures.

Learning materials which are mostly consist of Teaching Videos were not completely helpful. The constant lagging in the videos has never been fixed completely. The format of videos were not totally straightforward for playing the downloaded teaching videos.

There is absolutely necessity of having some notes for each of the units, in case of students having difficulty with videos, or even just not be able to understand the explanations in the recorded videos.

In general, I would prefer the live interaction with professors in comparison with recorded videos.

Having some prepared samples of the complete portfolio would facilitate the understanding the purpose and use of this tool.

I feel that the teaching method as well as the portfolio were successful.

I would like to suggest to make the content of the videos in the teaching material a bit more clear, since for me they were sometimes a bit hard to follow and understand.

Overall, I found the organization of the course pretty effective and fruitful. However, what I may suggest is to point out clearly and since the beginning which are the pros of mahara and the importance of exploiting them (e.g.: how to organize the work, namely mandatory work and additional work). I think this could help students to fully exploit the advantages of mahara, which sometimes turn up when it is too late. The suggestion is merely technical, because I think that the course is good as it is under other aspects.

I think this type of learning is very encouraging and lights up a lot of interest. It might be not very efficient in testing the knowledge and understanding of the basic concepts (e.g. molecular pathways). Nevertheless, this course allowed build connections between different topics and find out the application in real life. It goes far beyond the conventional approach, which has its own flaw - it does not teach how the find the real importance and possible appliances of topics.

I am content I have encountered with this method as it will be indispensable during other courses.

Some suggestions for the future courses:

-I felt that the videos and the provided text were not always clear, and sometimes went into details with the multiple factors at play, but did not explain well the overall processes. Therefore, as I believe it would be difficult to change the content of the provided material, I would suggest to schedule several live lectures, specifically designated to overview the major topics and to provide a comfortable atmosphere for students to ask for clearance of poorly understood concepts.

-I would suggest to start the discussion about the final portfolio rubric and the requirements for its organization much earlier in the course, to allow all of the confusion to happen earlier than the last month before exams and to highlight the importance for the students to start preparing themselves as soon as they can. I do realize the students' responsibility for not leaving things for the last minute, however, we also got the exact instructions for the organization of the portfolio relatively late, and had to spend many hours re-organizing the portfolios we thought we had completed.

-I would suggest to not use the Mahara platform. Many students had continuous problems with it, and it took a very long time to just upload and organize the works and the blocks of text. I have spent 3 full days just trying to organize the contents, after every work has already been uploaded there, because of the constant errors of the platform. I don't think it is fair towards the students that they have to dedicate so much time to technical sides of any course, especially few weeks before the exam session, as it might affect their preparation for the other exams.

Apart from that, I think the unique teaching method was stimulating and encouraged those interested to seek higher levels of understanding and to keep asking themselves questions that can lead there. So, in my opinion, the methodology in general is interesting and useful.

First of all, I think the course was very stimulating and challenging intellectually. I got the opportunity of viewing the material from different points of view and solving difficult problems. I do believe I made a lot of progress and learned a lot (not just from the material of the course).
However, I found it quite challenging to study it all during my free time, without knowing what the final result of my learning and working process should look like. Planning my time was a big problem I had been facing during the first semester.

I think if I had had some guidance from the first moment and knew exactly what the Portfolio should look like in terms of content, appearance, and how to use Mahara it would have created a less challenging experience.

I can not say that I am interesed in genetics, this is why I was not efficient, but for a person who is interested in genetics, the teacher provides everything needed for a successful learning process.

The aims of the course are very different from that of the other ones I attended so far. I think it is remarkable. However, a few points are to be discussed.

- **Initial part of the course**: many (or all, I cannot be sure) of us did not understand initially what we had to do for this course. We were somehow lost. I suggest to prepare a preliminary presentation which is to be seen (mandatory) before the beginning of the course. I suspect that actually a great percentage of us did not even read the presentation of the MG course on MedInTO, thus being unprepared for the methodology. I think that this could improve the initial approach to the module, which is, as said previously, quite different from the others and a lot of people are not used to it.
- **Videoquizzes and leadership**: the videoquizzes are sometimes "frustrating". I am referring to the impossibility to proceed in the vision of the video unless you did the quiz right. I think this can be improved by setting up a maximum number of attempts and then, in case of failure, show the correct answer. It is particularly useful in case of gap-fill exercises, where it otherwise can become trial-and-error process. I mean, the aim of the course is not to solve quizzes, isn't it?

  As far as the leadership is concerned, I found sometimes difficult to reason (individually) on the problems given before the actual group meeting because I could not see the assignment page. This happened especially for unit 4. I know that this is not really a "critical point", since it is easily overcome with the use of phones, computers, etc... However, I think that if every member of a group was given the possibility to access the assignment page without being able to submit any document, it would be a nice adduct to the organization without an impact on the modality of submission. I do not know if it is possible, although I wanted to provide this "stupid"(?) suggestion.

Considering all the 1st students were not in Turin from the start of the course, Individual work would be better than group assignment.

In case of Individual assignment only;

1) easier to organize each time each country
2) no burden to include late enrollers

Conclusioni

La complementazione di due ambienti di insegnamento (Moodle e Mahara) permette di migliorare diversi parametri della performance dei discenti, e precisamente aumento di:

- Efficacia del ruolo del feedback e della sua percezione
- Percezione del vantaggio di un metodo alternativo sia formativo sia di valutazione (Portfolio)
- Percezione di aumento dell'efficacia dell'intervento didattico (aumento interesse a aumento chiarezza delle lezioni)
- Coinvolgimento negli argomenti trattati

GRAZIE