**Syllabus / Course Outline Template for (Blended Courses)**

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| **Course Name: Introductory Biology** | | |
| **Course Code: BIOL 100** | **Course Type (elective)** | **Course Credits: 4** |
| **Class Timings:** Class Tuesday and Thursday ……………………….09:30-10:45 (S329)  **Lab Timings:** Friday ..11:00-1250 (S331) | **Section: G** | **Student Meeting Hours/ Office Hours:**  Tuesday and Thursday 11:00 to 13:00  Office/Lab: S-327/labs 341 or 429 or by appointment |
| **Instructor Name: Dr Muhammad Imran** | | |
| **A Note from the Instructor:**  I am your instructor for BIOL100 reserved section. I look forward to interacting with you and teaching this interesting course.  Moodle system will be employed for the course management. The course contents, assignment instructions and submissions will be made through Moodle only. The synchronous mode of lecturing will be used for both, on campus and off campus students who would be able to participate in classes via live streaming. The lectures will be recorded and shared via Moodle. | | |
| **Instructor Contact Details**  Email: [muhammadimran@fccollege.edu.pk](mailto:muhammadimran@fccollege.edu.pk) , 0333-9990735  Office Hours (face to face and/ or online):  Guidelines for contacting instructor: For face to face and/ or online contact make an appointment before visiting via email. | | |
| **TA Name and Contact Details (if applicable):**  N/A | | |
| **Course Description**:  Pre-requisites if any: N/A  Mode of Instruction (Asynchronous/Synchronous): Synchronous  [If applicable] Mode of peer-to-peer Contact Among Students: N/A | | |
| **Main Mode of Instruction: Mainly** *whiteboard, Multimedia Projector and Zoom/google meet (If needed),*  **Technology Requirements:**  If required to interact using Zoom etc. *Learn the basics of zoom to attend lectures.* You must familiarize yourself with Moodle as it will be our official platform for accessing the course materials etc.  **Technology Etiquettes**   * It is recommended to log in at least 10 minutes before the start of the session * Please stay muted when not speaking * Remember to think before you respond to make your thoughts and ideas clear and coherent to the other participants. * Please be mindful of the time, keep your contributions brief and to the point * Allow other participants/students time and opportunities to contribute to the discussion and share their ideas with the group. * Be respectful of others’ opinion * While online participation, keep your “Full Name and Roll Number” as a display title.   **Considerations for Students with Limited Internet/Technology Access:** If required by university under uncertain situations. The recorded lectures will be uploaded on Moodle. | | |
| **Lab Resources (if relevant):** With the blended mode of instruction the students will work in lab in their respective on campus weeks. In case of online mode of instruction, video tutorials will be shared with students and zoom sessions will be arranged for lab discussion. | | |
| **Program Objectives Addressed**   * Develop an understanding of how science is conducted. * Understand the structure organization and the functional aspects of living things * Acquire fundamental knowledge of genetics and relate them to current issues. * To give an appreciation of diversity of living things and their relevance to our lives. * To become aware of different systems of human body and their functions and some common health problems. | | |
| **Course Objectives or** [**Student Learning Outcomes**](https://docs.google.com/document/d/1me9vpl8iKR_zNX9gIODm7gkVFY9VkuSKpUJe1VyI57M/edit) **(SLOs)**   1. Understand and appreciate the role of biology in everyday life 2. Know the structure and function of cellular organelles 3. Know how molecules are synthesized and utilized for inheritance and cell functions and the basics of modern technologies that are changing medicine and agriculture. 4. Understand the importance of biodiversity and application of biology to our life. 5. To become familiar with various systems of human body and common health problems 6. Be better prepared to think rationally and analyze issues on scientific basis. | | |

**Course Content, Learning Material & Activities Schedule**

The schedule is tentative because it is not possible to anticipate exactly how much time each topic will require. Pl check out the online resources and alternate options for instructional tasks as linked below.

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| --- | --- | --- | --- | --- | --- |
| **Wk** | **Topic/ Title** | [**Teaching-Learning Activities**](https://docs.google.com/document/d/1jY2UWb3QuOogkiSMdPvZd33eKe2kRpfzsTm2LSrnLko/edit#heading=h.4dy4q49omahn) | | | [**Assessment**](https://docs.google.com/document/d/1Z4W_utaHpwMJP6B2jJlb9ofxFHmcagrWWOT5cUM9lj4/edit?usp=sharing)  **&** [**Rubrics**](https://docs.google.com/document/d/1IdFfZ8WRSRKSceBYC4jfAyKEYdb1M6Z4GSSLueP8HD0/edit)  (with the due date) |
| **Synchronous**  **(Simultaneously conducted)**  *Presentation / Lecture*  *Live Video-Audio*  *Small-Group Discussion/ Breakout Rooms*  *In-class quiz*  *Q&A/ Live Chat* | | **Asynchronous**  (postal/ Moodle/ email)  *Discussion blogs*  *WhatsApp*  *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings*  *Lecture notes/ Annotated PPT*  *Experiential learning*  *NA* |
| In-Person | Online (NA) | Off-campus and offline |
| 1 | Introduction  Scientific method | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Presentation / Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
| Characteristics of living things  **Assignment will be given** | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
| 2 | Bio-molecules | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 3 | Cells: the basic units of life | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 4 | Organelles | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 5 | The cell in action | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 6 | **Assignment due** |  |  |  | **Topic Relevance:**  Topic must be falling within the realm of Biology at undergraduate course level  **Assignment Structure and Presentation:**  The topic of the assignment must be clearly stated, and the assignment must be structured in a coherent manner  **Plagiarism:**  The assignment must be prepared by the student and the similarity index must not exceed 25%. |
| Genes and DNA+ Heredity | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
| 7 | Classification of bacteria and protist | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 8 | Classification of fungi + Classification of plants | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| **MIDTERMS**  **Moodle exam (MCQs) will be taken** | | | | |  |
|
| 9 | Classification of animals (all Phylum) | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 10 | Human body organization + Digestive system | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 11 | Skeletal system + Muscular system | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 12 | Nervous system + Skin system + Endocrine system | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 13 | Respiratory system + Urinary system | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
|  |  |  |  |  |
| 14 | Blood circulatory system | *Presentation / Lecture*  *Small-Group Discussion/*  *Q&A/ Live Chat* | *Lecture*  *Live Video-Audio*  *Small-Group Discussion/*  *In-class quiz*  *Q&A/ Live Chat* | *Readings*  *Moodle Quizzes*  *Assignment Submission*  *Online Content/ Recordings* |  |
| **Revision** |  |  |  |  |
| 15 | **CULMINATING PROJECT** | | | |  |

**‘Out-of-class Study Required (across all 3 categories of students -- those attending in-person, online, or asynchronously)**

*The assignments should be submitted via Moodle by the due date. Exams will also be conducted via Moodle.*

*For maximizing your learning best practices include attending study sessions regularly and taking good notes, spend 2.5 hours a week for this course theory part and 2 hours for practical work.*

**Come prepared** to participate. Questions will be posed to stimulate discussion. Diagrams or illustrations will simplify difficult concepts when possible. To get the most out of this course, spend time thinking about the information presented in lectures, readings, and discussions.

### **Textbooks, Materials, Supplies, and other Resources**

Texts and reference materials will be provided to students on an ongoing basis:

### Life Science – Holt Science & Technology by Katy Z. Allen, Linda R. Berg, Barbra Christopher Jennie Dusheck & Mark F. Tylor. 2007. Holt Rinehart & Winston, NY.

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| --- | --- |
| **Week** | **Laboratory** |
|  | Lab safety, notebook discussion, lab coat + lab working ethics |
|  | Campus tour to study living things and a visit to Zoology Museum |
|  | A visit to a botanical garden |
|  | How to use a microscope |
|  | Animal cell slide preparation (cheek cell or frog epidermis)  **Quiz 1** |
|  | Plant cell slide preparation (onion epidermis, and leaf epidermis) |
|  | Mitosis (prepared slides) |
| 8. |
| 9 | Study of chloroplast and chromoplast from tomato pulp |
| 10 | BMI and blood pressure measurement |
| 11. | Slides of bacteria, protist and fungi |
| 12 | Plant diversity observation (moss, fern, gymno and angiosperms  **Quiz 2** |
| 13 | Animal diversity (different phylum) |
| 14 | Mechanical and chemical digestion (trypsin + egg white) and Production of CO2 during breathing |
| 15 | Study of model frog or rabbit for organs systems |
| 16 | **FINAL LAB EXAM** |
|  |  |

**Course Requirements:**

**Class Participation**

Participation in the class will be gauged only by the attendance. This will be worth 5% of the total marks

### **Assignment 1**

Assignment 1 (worth 10% of the total marks) will be given. The rubrics for assignment assessment are:

**Topic Relevance:**

Topic must be falling within the realm of Biology at undergraduate course level

**Assignment Structure and Presentation:**

The topic of the assignment must be clearly stated, and the assignment must be structured in a coherent manner

**Plagiarism:**

The assignment must be prepared by the student and the similarity index must not exceed 25%.

The late submission of the assignment will result in deduction of marks. After the expiry of 1st deadline, a second deadline will be given which will result in deduction of 25% of the marks of assignment, upon expiry of the 2nd deadline a 3rd deadline will be give failure to submit by the 3rd deadline will result in deduction of 50% of the marks of assignment.

### **Assignment 2**

Assignment 2 (worth 10% of the total marks) will be given. The rubrics for assignment assessment are:

**Topic Relevance:**

Topic must be falling within the realm of Biology at undergraduate course level

**Assignment Structure and Presentation:**

The topic of the assignment must be clearly stated, and the assignment must be structured in a coherent manner

**Plagiarism:**

The assignment must be prepared by the student and the similarity index must not exceed 25%.

The late submission of the assignment will result in deduction of marks. After the expiry of 1st deadline, a second deadline will be given which will result in deduction of 25% of the marks of assignment, upon expiry of the 2nd deadline a 3rd deadline will be give failure to submit by the 3rd deadline will result in deduction of 50% of the marks of assignment.

### **Tests & Quizzes**

Quizzes, Midterm and Final exams will be MCQs and short question based and will be conducted in online and as well as in class for on campus students.

### **Assigned Readings**

Insert description and rubric

The breakup is as follows:

**Class Participation** 5%

**Assignments:** 20%

**Quizzes:**  10%

**Midterm exam**: 20%

**Lab exam:** 10%

**Final term exam:**  35%

**TOTAL 100%**

**Subject to slight change as per decision of course coordinators.**

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### **Missed Assignments/ Make-Ups/ Extra Credit**

Missed exam can only be retaken in case of genuine reason*.* However, makeup exam will be result in deduction of 5% of the total marks of the missed exam.

The late submission of the assignment will result in deduction of marks. After the expiry of 1st deadline, a second deadline will be given which will result in deduction of 25% of the marks of assignment, upon expiry of the 2nd deadline a 3rd deadline will be give failure to submit by the 3rd deadline will result in deduction of 50% of the marks of assignment.

Students can receive extra credit of up to 0.5 points if their grade improves. This will only be added when the final grade is calculated.

**Attendance Policy:**

**If a student fails to attend 80% of the lectures and of the laboratory work, s(he) will not be allowed to appear in the Final Examination if attendance drops below university minimal attendance requirement (Check rule in student handbook).** Excused absence on account of family emergency and/or participation in university activities will not count towards class attendance. The weightage of the attendance will be 5% of the total grade if the attendance of the student will be **80% or above.** For less than **80% attendance there will be no score for attendance**.

**Classroom Participation:**

**Come prepared** to participate. Questions will be posed to stimulate discussion. Diagrams or illustrations will simplify difficult concepts when possible. To get the most out of this course, spend time thinking about the information presented in lectures, readings, and discussions.

**Grade Determination & Course Assessment as per FCC Policy:**

*- Total grade will be compiled by the merger of student participation, comprehensive understanding of the subject, oral and online exams.*

**Grading Legend**

Below is the grading legend of FCCU (published in all catalogues and available on the FCCU website) as approved by the Academic Council

|  |  |  |  |
| --- | --- | --- | --- |
| **Grade** | **Point Value** | **Numerical Value** | **Meaning** |
| A | 4.00 | 93-100 | Superior |
| A- | 3.70 | 90-92 |
| B+ | 3.30 | 87-89 | Good |
| B | 3.00 | 83-86 |
| B- | 2.70 | 80-82 |
| C+ | 2.30 | 77-79 | Satisfactory |
| C | 2.00 | 73-76 |
| C- | 1.70 | 70-72 |
| D+ | 1.30 | 67-69 | Passing |
| D | 1.00 | 60-66 |
| F | 0.00 | 59 or below | Failing |

**Student Conduct & Other Issues:**

* It is recommended to log in at least 10 minutes before the start of the session
* Please stay muted when not speaking
* If allowed to speak, be mindful of your tone and expressions during the session. This is not an anonymous session. Your voice and video are viewed by all who are participating in the session
* Remember you are on camera and live. The advantage of video conferencing is that you can take advantage of facial expressions, inflection, and tone of voice.
* Remember to think before you respond to make your thoughts and ideas clear and coherent to the other participants.
* Please be mindful of the time, keep your contributions brief and to the point
* Allow other participants/students time and opportunities to contribute to the discussion and share their ideas with the group.

Be respectful of others’ opinion

- If any student faces any issues or has any concerns regarding the classroom climate and interactions, please feel free to contact VR office \_\_\_ [gloriacalib@fccollege.edu.pk](mailto:gloriacalib@fccollege.edu.pk)

**Changes to the Syllabus:**

This syllabus was designed to convey course information and requirements as accurately as possible. It is important to note however that it **may** be subject to change during the course depending on the needs of the class and other situational factors. Such changes would be for your benefit and you will be notified of them as soon as possible.

**Student Support Services**

[Student Counseling Services](https://www.fccollege.edu.pk/ccc/campus-counseling-center/).Students can contact the [Campus Counseling Center](https://www.fccollege.edu.pk/ccc/campus-counseling-center/) at 0331-444-1518 or email [ccc@fccollege.edu.pk](mailto:ccc@fccollege.edu.pk).

[Writing Center](https://www.fccollege.edu.pk/faculty-of-humanities/writing-center/)

[Mercy Health Center](https://www.fccollege.edu.pk/mercy-health-center/)

**Other Useful FCCU Policy Documents:**

[Sexual Harassment Policy](https://www.fccollege.edu.pk/wp-content/uploads/2018/05/Doc1.pdf)

[Anti-Corruption Policy](https://www.fccollege.edu.pk/wp-content/uploads/2018/05/Anti-corruption.pdf)

[Academic integrity](https://www.fccollege.edu.pk/policy-on-academic-integrity/)

[Plagiarism Policy](https://www.fccollege.edu.pk/wp-content/uploads/2018/05/FCCU-Plagiarism-Policy.pdf)

[Academic Calendar](https://www.fccollege.edu.pk/academic-calendar/)

**Additional Communication** for students that you might add to your course outline or email:

1. Honor FCC Core Values:

*I expect that you will strictly follow the core values of FCCU and put your entire efforts to learn as per the course requirements, attend classes, read the textbook(s)/other assigned reading material and do the assignments in the stipulated time period*

1. Clarify Expectations for Teacher Response to students, for example,:

Following the signature, in emails, you can add: *"I generally respond to emails between the hours of 9 AM and 9 PM. If I do not respond within 48 hours, feel free to send a follow-up email."*

Or you can also include something like this in the course outline: *"This class is available 24/7 but the instructor is not. I will respond to an email Monday through Friday (until 3 pm) unless it is a holiday or extenuating circumstances intervene. During the workweek, you can expect a response within 24 hours, and I expect the same courtesy from my students.*"

1. For Prior Reading of Text before the Synchronous Class, [be clear in your communication of what you expect](https://gauchocast.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=2015a564-2f81-46ee-922d-ab8f0121fda2)

**Developed by CLT (2020) from:**

<https://www.aascu.org/>

<https://blended.online.ucf.edu/>

[Syllabus Checklist](https://ctaar.rutgers.edu/teaching/syllabus/)

[How to Create a Syllabus](https://www.chronicle.com/article/how-to-create-a-syllabus/?utm_source=Iterable&utm_medium=email&utm_campaign=campaign_1411850_nl_Academe-Today_date_20200804&cid=at&source=ams&sourceId=30292&cid2=gen_login_refresh)

**Note:**

Pl also see

<https://unitguides.mq.edu.au/> for additional options.

Macquarie University has all their syllabus online (called Unit Guides and are publicly viewable)

[Syllabus and How to Use It](https://docs.google.com/document/d/1aSAgK-1a4kfXB3HjAQKrC-TtKoUiYqXCJnNQNvXShyU/edit)

For your teaching philosophy to the syllabus see podcast on [Revisiting our Teaching Philosophies](https://magnapublications.lt.emlnk1.com/Prod/link-tracker?redirectUrl=&a=223603823&account=magnapublications%2Eactivehosted%2Ecom&email=bbDt3ZrXJIcVh6z9t3EAwYS0tfFqXVz6OXmDNY8o9M4%3D&s=cc4b746d17dc2d665d03cf6c6cb76213&i=2452A2739A23A77250)

[Course Outline Template](https://www.yorku.ca/laps/faculty-staff/instructor-resources/going-digital/course-outline-templates/)s for more clarity if required- modify for FCCU requirements

Please also consider [High Impact Practices](https://www.aacu.org/node/4084) for your classes

**Updated on:** 25-08-2022