**BIOLOGY FOR ENGINEERS**

**Course Code: BS206BZ/AICTE OSMANIA UNIVERSITY CORE SEM 3 & 4 (2019-20)**

**UNIT 1:**

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| **Sl.No** | **Lesson** | **URL address** |
| a. | Hypothesis on origin of Life | -<< https://www.khanacademy.org/science/ biology/ history-of-life-on-earth/history-life-on-earth/ a/hypotheses-about-the-origins-of-life >> |
| b.  | Biomolecules: | <<https://www.researchgate.net/publication/323551103>> |
| c. | Classification-Animalia | <<. https://www.pmfias.com/classification-animalia-animal-kingdom/ #Basis\_for\_Animal\_ Kingdom\_Classification>> |
| d | Gymnosperms | <http://www.geocities.com/Heartland/Plains/6761/ecycads.htm> |

**UNIT 2:**

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| a. | Plant Growth and Development | Transcript From: https://mycbseguide.com/blog/plant-growth-development-class-11-notes-biology |
| b. | Plant Nutrition |  https://en.wikipedia.org/wiki/Plant\_nutrition |
| c. | Photosynthesis | 1. https://www.livescience.com/51720-photosynthesis.html
2. Science and Technology Concepts <https://ssec.si.edu/science-and-technology-concepts-middle-school>>
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| d. | Nitrogen Fixation | http://www.biologydiscussion.com/nitrogen-fixation/types-nitrogen-fixation/nitrogen-fixation-types-physical-and-biological-nitrogen-fixation-with-diagram/14969 |
| e. | Animal Organ Systems | The 12 Animal Organ Systems by Bob Strauss[Updated January 06, 2019 https://www.thoughtco.com/animal-organ-systems-4101795?print] |
| f. | Microbial Systems | https://instruct.uwo.ca/biology/090b/1290b%201-7.pdf |
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**UNIT 3:**

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| a. | Genetics & Evolution: Introduction to Evolution & Natural Selection, | https://www.austincc.edu/sziser/Biol%201413/LectureNotes/lnexamI/Intro%20to%20Evolution.pdf |
| b. | Laws of inheritance and cell division | https://geneticsandcelldivision.weebly.com/mendels-experiments.html |
| c. | Nucleic Acid as Genetic Material | http://www.biologydiscussion.com/acids/nucleic-acid/evidences-of-nucleic-acids-as-genetic-material-microbiology/65086 |
| d. | Gene and Chromosome | https://www.powershow.com/viewht/7dcaec-OTYxZ/DNA\_and\_Chromosomes\_powerpoint\_ppt\_presentation |

**UNIT 4:**

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| a. | Diabetes | https://www.slideshare.net/mldanforth/diabetes-powerpoint-8673722 |
| b. | Hypertension | https://youtu.be/FBoYigdnLKQ |
| c. | Influenza | https://image.slidesharecdn.com/influenza-160815183923/85/influenza-31-320.jpg?cb=1471286431 |
| d | Diabetes | https://image.slidesharecdn.com/diabetespowerpoint-110723161703-phpapp02/95/diabetes-powerpoint-17-728.jpg?cb=1311437913 |
| e. | AIDS | https://image.slidesharecdn.com/sathespresentation-101009120225-phpapp02/95/aids-11-728.jpg?cb=1416969770 |
| f. | Hepatitis | https://www.scribd.com/doc/130929601/Hepatitis-ppt |
| g. | Immunity | https://youtu.be/-yFc18Hxdgk |

**UNIT 5:**

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| a. | Biotechnology | https://nptel.ac.in/courses/102103045/ |
| b. | Transgenics  | 1. https://youtu.be/Z-l\_e5\_WEWM
2. https://youtu.be/8rb\_exM0kgY
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| c. | Stem Cells & Tissue Engineering | 1. https://youtu.be/-8xHWhg6YQA
2. https://ocw.mit.edu/courses/biology/7-012-introduction-to-biology-fall-2004/video-lectures/lecture-29-stem-cells-cloning-1/
3. https://ocw.mit.edu/courses/biology/7-012-introduction-to-biology-fall-2004/video-lectures/lecture-30-stem-cells-cloning-2/
 |
| d. | Bioreactors,  | https://image.slidesharecdn.com/sabaapplicationsofbioreactor-160402081239/95/bioreactor-and-its-applications-4-638.jpg?cb=1459584796 |
| e. | Biochips | https://image.slidesharecdn.com/biochips2016-170607055159/95/biochips-biosensor-13-638.jpg?cb=1496816217 |
| f. | Biofertilizer | https://image.slidesharecdn.com/biofertilizersproductionandtheirapplications-170614132511/95/biofertilizers-production-and-their-applications-32-638.jpg?cb=1509627610 |
| g. | Neural Network | https://blog.statsbot.co/neural-networks-for-beginners-d99f2235efca |
| h. | Biopharming | https://image.slidesharecdn.com/biopharming-151102211447-lva1-app6892/95/biopharming-molecular-farming-9-638.jpg?cb=1452190343 |