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|  | **Mutah University**  **Detailed Syllabus Form** | Description: C:\Users\lamasat.lamasat-PC\Pictures\Picture1.png |

**First :** Course Information**:**

|  |  |
| --- | --- |
| * Course Number:0302216 | * Course Title: Introduction   to Astronomy |
| * Credit Hours:3 | * College: Science |
| * Pre-requisite | * Department: Physics |
| * Instructor: Prof. Hussain Omari | * Semester & Academic Year: |
| * The time of the lecture:   Mon, Wed 11:00 – 12:30 | * Office Hours: Mon 12:30 – 14:00   Wed 9:00 – 11:00 |

**Second :** General Course Description

* Big bang and inflation
* Cold dark matter and explosive origin of cosmic Voids
* Matter and radiation decoupling era
* Early cosmic sound waves
* Formation epoch of very distant stars
* Hot luminous piercing brightness stars
* Supernova explosion and formation of the solar system
* The main stages in the evolution of a solar type star
* Stellar positions
* Today's composition of the universe: percentages of dark energy, dark matter and normal matter
* It is discovered that the universe is expanding at an accelerating rate.  However is there a reversal to inflationary epoch?!
* Examples of pairs in physics and mathematics
* Earth:

Formed via accretion and inflation

Its four distinct Layers

Waves of motion taking place deep within liquid core

Magnetic field generated by convection of magnetic electrically conductive outer core, and acts as a magnetic mirror.

Convection material circulating in the mantle

What happens to earth during the Red giant phase of the Sun.

**Third :** Course Objectives

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**Fourth:** Expected Learning Outcomes

* **....................................................................................................................................**
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**Fifth :** Course Plan Distribution & Learning Resources

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| **Learning Resources** | **Topics to be Covered** | **Week**  **No.** |
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**Sixth :** Teaching Strategies and Methods

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| **Teaching Strategies and Methods** | No |
|  | **1** |
|  | **2** |
|  | **3** |
|  | **4** |
|  | **5** |

**Seventh :** Methods of Assessment

|  |  |  |  |
| --- | --- | --- | --- |
| **Proportion of Final Evaluation** | **Evaluation Methods of** | **Week & Date** | **No.** |
|  |  |  | **1.** |
|  |  |  | **2.** |
|  |  |  | **3.** |
|  |  |  | **4.** |
|  |  |  | **5** |
|  |  |  | **6** |
| **(100%)** |  | **Total** | |

**Eighth :** Required Textbooks

**- Primary Textbook:**

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**-** **Secondary References**

* **....................................................................................................................................**
* **....................................................................................................................................**

**Ninth :** General Instructions

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| **Additional Notes, Office hours, Incomplete Exams, Reports, Papers, …etc** | **No** |
|  | **1** |
|  | **2** |
|  | **3** |
|  | **4** |
|  | **5** |