Meeting for MTech course structure
Date: 14/05/2024

Todo:
1. **Current and future DPGC to get this approved.**

MTech Course Structure for SPASE students

1. **MTech credit requirements:** 144 credits, breakdown semester wise
   a. 1st semester: 36 credits (4 full courses)
   b. 2nd semester: 36 credits (4 full courses)
   c. 3rd and 4th semester: MTech thesis of 72 credits
2. **First semester:**
   a. Students would take 3 department compulsory courses. These will be in the form of 6 already floated modular courses.
   b. And one open or department elective.
3. **In the second semester:**
   a. in terms of specialization (for those who want to specialize) **two compulsory courses from a basket of courses** within a stream can be taken. We have identified two broad streams named: (1) Planetary science and technology (**PST**) and (2) Space Astronomy and Instrumentation (**SAI**)
   b. And two open or department electives.

Semester - 1	Semester - 2
SPA 622 M Mathematical Techniques in Space Science and Engineering	Two courses from the basket of either **PST** or **SAI.**
SPA 623 M Numerical Techniques in Space Science and Engineering	Two open or department Elective
SPA 614M Introduction to Celestial Mechanics	
SPA 618M Introduction to Radiative Processes in Space	
SPA 613M Introduction to Celestial Observational Techniques	

SPA 617M Space Instrumentation Laboratory	
Open or department Elective	
Total credits: 6x5 + 9 = 39	**Total credits: 4x6 = 36**

– Basket of courses from which students can choose two courses. Students can also choose from the other stream and that will be counted as their elective.
– The streams will get populated over time as expertise strengthens.

PST	SAI
SPA 6XX M Introduction to Mathematical Transforms	SPA 6XX M Introduction to Mathematical Transforms
SPA 6XX M Statistics and Data Analysis	SPA 6XX M Statistics and Data Analysis
SPA 6XX M Introduction to Fluid Mechanics in Space	
SPA621	SPA611, SPA612, SPA625
Introduction to Geology	
Course by Arun Mishra	