



# **ACTION TAKEN REPORT**

**Department of Mechanical Engineering  
(School of Engineering & Technology)**

**Academic Year 2021-2022 to 2017-2018**



**DIT UNIVERSITY**

**Mussoorie Diversion Road Dehradun, Uttarakhand-248009**

### Action Taken Report 2021-2022

#### Department of Mechanical Engineering

<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. Board discussed the introduction of Fully Flexible Choice Based Credit System (FFCBCS) in B.Tech- Robotics and Automation w.e.f the academic year 2021-2022. <b>(Item no 9.2)</b></li><li>2. The details of syllabi of the FFCBCS courses for B.Tech- Robotics and Automation has been proposed. <b>(Item no. 9.3)</b></li><li>3. The course description and syllabus has been reviewed of following programs:<ol style="list-style-type: none"><li>(i) B.Tech-Mechanical Engineering (CBCS)</li><li>(ii) B.Tech-Mechanical Engineering with specialization in Automobile Engineering (CBCS)</li><li>(iii) B.Tech-Mechanical Engineering (FFCBCS)</li><li>(iv) B.Tech-Mechanical Engineering with specialization in Automobile Engineering (FFCBCS)</li><li>(v) M.Tech (Mechanical Engineering)</li><li>(vi) M.Tech (CAD/CAM)</li><li>(vii) Ph. D (Mechanical Engineering)</li><li>(viii) Diploma (Mechanical Engineering) <b>(Item no. 9.4)</b></li></ol></li><li>4. External experts suggested to make MOOC basket in all UG and PG programmes. <b>(Item no. 9.4)</b></li><li>5. For Ph.D (ME) program, expert suggested to introduce following two elective course:<ol style="list-style-type: none"><li>(i) Conventional Welding Processes</li><li>(ii) Inspection and Testing of Weldments <b>(Item no. 9.4)</b></li></ol></li></ol>		
<b>Action Taken</b>	The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.	Responsibility Head ME	March 2021



  
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## Action Taken Report 2020-2021

### Department of Mechanical Engineering

<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. Board discussed the introduction of Fully Flexible Choice Based Credit System (FFCBCS) in B.Tech. Mechanical Engineering Programmes w.e.f the academic year 2020-2021. <b>(Item no 8.2)</b></li><li>2. Syllabi of the FFCBCS courses for B.Tech Mechanical Engineering program has been proposed. <b>(Item no. 8.3)</b></li><li>3. As per the recommendation of the experts, Choice Based Credit System (CBCS) will be continued with second year onwards of following programs:<ol style="list-style-type: none"><li>(i) B.Tech (Mechanical Engineering)</li><li>(ii) B.Tech (Mechanical Engineering with specialization in Automobile Engineering) <b>(Item no. 8.4)</b></li></ol></li></ol>			
<b>Action Taken</b>	<table border="1"><tr><td>The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.</td><td>Responsibility Head ME</td><td>March 2020</td></tr></table>	The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.	Responsibility Head ME	March 2020
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### Action Taken Report 2019-2020

#### Department of Mechanical Engineering

<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. Syllabi of the courses for B.Tech Mechanical Engineering program was revised and proposed. <b>(Item no. 7.2.1)</b></li><li>2. It was suggested to offer course of 'Advanced Materials' for Automobile Engineering specialization as department elective. <b>Item no. (7.2.2)</b></li><li>3. It was suggested to offer 'Ergonomics' for Automobile Engineering specialization as 7<sup>th</sup> semester elective <b>Item no. 7.2.2</b></li><li>4. Advanced I.C engine and noise and air pollution in B.Tech ME-AE. <b>(Item no. 7.2.2)</b></li><li>5. M.Tech thermal engineering- student study project was staggered in three semesters from 2<sup>nd</sup> to 4<sup>th</sup> semester. <b>(Item no. 7.2.3)</b></li><li>6. For M.Tech Thermal Engineering – Program renamed as M.Tech thermal and fluid engineering. <b>(Item no. 7.2.3)</b></li><li>7. In M.Tech first semester, Advanced mathematics (MA601) should be replaced by Modeling and simulation (ME605). <b>(Item no. 7.2.3)</b></li><li>8. In M.Tech second semester, Modeling and simulation (ME605) should be replaced by Computational method for heat transfer and fluid flow (ME643). <b>(Item no. 7.2.3).</b></li><li>9. Suggestions of external experts recommended to replace elective of humanities with some departmental electives like FEM, CFD and some simulation related course. <b>(Item no. 7.2.1)</b></li><li>10. Suggested by the expert to shift the course manufacturing technology (ME302) to 4<sup>th</sup> semester and shift the course design of machine elements (ME209) to 5<sup>th</sup> semester. <b>(Item no. 7.2.1)</b></li><li>11. From the elective list it was suggested to shift the elective advanced design of machine elements (ME345) to be shifted to the 6<sup>th</sup> semester. <b>(Item no. 7.2.1)</b></li><li>12. In 8<sup>th</sup> semester suggested that in place of course principle of management (ME453) a more applied course like supply chain management should be offered. <b>(Item no. 7.2.1)</b></li><li>13. Expert suggested that the course entrepreneurship development should be in 7<sup>th</sup> semester as department elective. <b>(Item no. 7.2.1)</b></li><li>14. About course structure and syllabi of <b>course to be offered in the Ph.D. Mechanical Engineering</b>, the expert suggested</li></ol>
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	incorporating a chapter into a subject research methodology (MB901) on plagiarism. <b>(Item.7.2.7)</b> 15. As per the suggestions of experts MOOC courses in 4 to 5 relevant course of BTME may be offered with credit transfer options under department electives. <b>(Item 7.3.2)</b>		
<b>Action Taken</b>	The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.	Responsibility Head ME	March 2019



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## Action Taken Report 2018-2019

### Department of Mechanical Engineering

<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. New syllabi for the 1<sup>st</sup> year of the course, proposed by Mech. Engg. for revision <b>(Item. 1.3)</b></li><li>2. Following recommendations for BTME second year course syllabus has been planned:<ol style="list-style-type: none"><li>(i) Course thermodynamics be renamed as basic thermodynamics bearing as the same course code.</li><li>(ii) Advise to rename 'Basic Thermodynamics' as 'Thermodynamics and Heat Engines' in 3<sup>rd</sup> semester.</li><li>(iii) Introduce advanced automobile engineering course in 6<sup>th</sup> semester be focus in CI and SI engines.</li><li>(iv) Retitled subject 'Applied Thermodynamics' as applied 'Thermodynamics-I'. <b>(Item. 1.4)</b></li></ol></li><li>3. Following recommendations for BTME second year course syllabus has been planned:<ol style="list-style-type: none"><li>(i) Renaming the subject 'IC and RAC' as 'Applied Thermodynamics II' with upgraded syllabus.</li><li>(v) Styling studio/engineering stress analysis (ansys) course should be introduced with 0 0 2 L T P. <b>(Item. 1.5)</b></li></ol></li></ol>		
<b>Action Taken</b>	The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.	Responsibility Head ME	March 2018



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**Action Taken Report 2017-2018**  
**Department of Mechanical Engineering**

<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. Board discussed the introduction of Choice Based Credit System (CBCS) in B.Tech. Mechanical Engineering Programmes w.e.f the academic year 2017-2018. <b>(Item no 01)</b></li><li>2. M.Tech (Mechanical Engineering)– As per expert’s suggestions revisions in the syllabus of the course LBB 120 and LBB 010 has been implemented. <b>(Item no 02)</b></li><li>3. For B.Tech –7<sup>th</sup> semester ME, expert suggested to introduce following elective in the course,<ol style="list-style-type: none"><li>a) Cryogenics</li><li>b) Design of heat exchanger</li><li>c) Solar energy</li><li>d) Smart materials and structure</li><li>e) Fuel, combustion &amp; environment</li><li>f) Noise, vibration and harshness</li><li>g) Energy audit. <b>(Item no 03)</b></li></ol></li><li>4. Board discussed the introduction of Choice Based Credit System (CBCS) in B.Tech. Mechanical Engineering with specialization in Automobile Engineering w.e.f the academic year 2017-2018. <b>(Item no 04)</b></li></ol>		
<b>Action Taken</b>	The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.	Responsibility Head ME	April 2017



*for*  
*[Signature]*  
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**Action Taken Report 2018-19**  
**Department of Mechanical Engineering**

	<b>BOS Action taken Report-2019</b>
<b>Recommendation 1</b>	<ol style="list-style-type: none"><li>1. Choice based credit system w.e.f the academic year 2017 <b>Item no. 7.2.2</b></li><li>2. Syllabi of the 1<sup>st</sup> and 2<sup>nd</sup> year of the B.Tech, mechanical engineering program of 2017-2021 was revised and approval. <b>Item no. 7.2.2</b></li><li>3. Course of advanced materials for automobile should be offered as department elective. <b>Item no. 7.2.2</b></li><li>4. Ergonomics for automobile as 7<sup>th</sup> semester elective <b>Item no. 7.2.2</b></li><li>5. Advanced I.C engine and noise and air pollution in B.TECH ME-AE. <b>Item no. 7.2.2</b></li><li>6. M.Tech thermal engineering- student study project was staggered in three semesters from 2<sup>nd</sup> to 4<sup>th</sup> semester. <b>Item no. 7.2.3.</b></li><li>7. For M.Tech thermal engineering – Program renamed as M.Tech thermal and fluid engineering. <b>Item no. 7.2.3</b></li><li>8. Advanced mathematics (MA601) should be replaced by Modeling and simulation (ME605). <b>Item no. 7.2.3.</b></li><li>9. Modeling and simulation (ME605) should be replaced by computational method for heat transfer and fluid flow (ME643). <b>Item no. 7.2.3.</b></li><li>10. About B.Tech It was suggested by the expert about the 4 elective of humanities that it should be reduce by the more relevant subject like FEM, CFD and some simulation related course. <b>Item no. 7.2.3.</b></li><li>11. Suggested by the expert to shift the course manufacturing technology (ME302) to 4<sup>th</sup> semester and shift the course design of machine elements (ME209) to 5<sup>th</sup> semester. <b>Item no. 7.2.3.</b></li><li>12. From the elective list it was suggested to shift the elective advanced design of machine elements (ME345) to be shifted to the 6<sup>th</sup> semester. <b>Item no. 7.2.3.</b></li><li>13. It was suggested to offer an elective in industrial ergonomics in elective course. <b>Item no. 7.2.3.</b></li><li>14. In the 7<sup>th</sup> semester mechanical vibration (ME450) should be renamed as fundamental of sound and vibration. <b>Item no. 7.2.3.</b></li><li>15. It was suggested to offer automatic control as elective and signal processing, artificial intelligence, machine learning as open elective. <b>Item no. 7.2.3.</b></li><li>16. In 8<sup>th</sup> semester suggested that in place of course principle of management (ME453) a more applied course like supply chain management should be offered. <b>Item no. 7.2.3.</b></li><li>17. Expert suggested, setup a non-destructive lab. <b>Item no. 7.2.3.</b></li><li>18. Humanities elective in 8<sup>th</sup> semester should be more industry oriented. <b>Item no. 7.2.3.</b></li><li>19. Expert suggested that the course entrepreneurship development should be in 7<sup>th</sup> semester as department elective. <b>Item no. 7.2.3.</b></li><li>20. <b>About the M.Tech CAD/CAM</b> suggested renaming the program name as CAD/CAM and Robotics. <b>item.7.2.4</b></li></ol>



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	<p>21. Suggested that the course like advanced robotics and control, automatic control and dynamics of mechanical systems should be offered as an elective. <b>Item.7.2.4</b></p> <p>22. About course structure and syllabi of <b>course to be offered in the Ph.D Mechanical Engineering</b>, the expert suggested incorporating a chapter into a subject research methodology (MB901) on plagiarism. <b>Item.7.2.7</b></p> <p>23. About the Diploma Mechanical Engineering, expert suggested to emphasis in course English about the topic related to conversational skills, group discussion, and personal interview and presentation skills. <b>Item 7.2.8</b></p> <p>24. Suggest about the course self-employment and entrepreneurship development (ME305D) should be more market oriented. <b>Item 7.2.8</b></p> <p>25. Suggested that the course manufacturing process (ME204D) with L T P distributions of 3-0-3 should be include one practical. <b>Item 7.2.8</b></p> <p>26. Suggested for MMOCs in various program, and suggested that to start with 4 to 5 relevant course may be offered with credit transfer options under department elective course. <b>Item 7.3.2</b></p>		
<p><b>Action Taken</b></p>	<p>Changes suggested in BOS has been approved in academic council (point no 1,2,3,6,10, 12,13, 15, 18,19,21,22,23,24,25) Changes suggested in BOS has not approved in academic council and put into further discussion and deliberation on that (point no 4, 5, 7, 8, 9, 11, 14, 16,17, 20, 26)</p>	<p>Responsibility Head ME</p>	<p>March 2019</p>



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**Action Taken Report 2017-18**  
**Department of Mechanical Engineering**

<b>Recommendation 1</b>	BOS -2018 <ol style="list-style-type: none"><li>1. New syllabi for the 1<sup>st</sup> year of the course, proposed by Mech. Engg. for revision <b>Item. 1.1</b></li><li>2. IT WAS PROPOSED that the course thermodynamics be renamed as basic thermodynamics bearing as the same course code. <b>Item. 1.2</b></li><li>3. It was suggested that B.Tech specializing in automobile engineering instead of basic thermodynamics" thermodynamics and heat engines" in 3<sup>rd</sup> semester to be introduced <b>Item. 1.4</b></li><li>4. It was suggested to introduce advanced automobile engineering course in 6<sup>th</sup> semester be focus in CI and SI engines. <b>Item. 1.4</b></li><li>5. It was suggested to retitled subject applied thermodynamics (ME-IV) as applied thermodynamics –I. <b>Item. 1.4</b></li><li>6. The board suggests renaming the subject IC and RAC as applied thermodynamics II with upgraded syllabus. <b>Item. 1.5</b></li><li>7. Styling studio/engineering stress analysis (ansys) course should be introduced with 0 0 2 L T P. <b>Item. 1.5</b></li></ol>		
<b>Action Taken</b>	The Board further resolved to recommendation in academic council.	Responsibility Head ME	April 2018



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## Action Taken Report 2017-18 Department of Mechanical Engineering

<b>Recommendation 1</b>	<p><b>BOS 2017</b></p> <ol style="list-style-type: none"> <li>1. <b>About B.Tech 1st year</b>, Board discussed the introduction of two new courses in course structure and also the syllabi for engineering mechanics and engineering measurement-II. <b>Item no 01</b></li> <li>2. Board discusses to proposed changes in the syllabi and course structure of the course engineering graphics and workshop. <b>Item no 01</b></li> <li>3. The evaluation scheme of engineering graphics is proposed by a mid-term exam of 20 marks. <b>Item no 01</b></li> <li>4. <b>About M.Tech –Mechanical Engineering</b>, expert suggest to rename the program name from M.Tech in Mechanical Engineering to M.Tech Mechanical engineering specialization in thermal engineering. <b>Item no 02</b></li> <li>5. Expert suggests to changes in the syllabus of the course LBB 120 and LBB 010. <b>Item no 02</b></li> <li>6. <b>About B.Tech –7<sup>th</sup> semester ME</b>, expert suggested to introduce following elective in the course,             <ol style="list-style-type: none"> <li>a) Cryogenics      b) design of heat exchange</li> <li>c) solar energy    d) smart materials and structure</li> <li>e) fuel, combustion &amp; environment</li> <li>f) noise , vibration and harshness</li> <li>g) Energy audit. <b>Item no 03</b></li> </ol> </li> <li>7. About B.Tech ME-2<sup>nd</sup> year specialization in automobile engineering, expert give the opinion to add more relevant basic subject in 3<sup>rd</sup>, 4<sup>th</sup> semester. <b>Item no 04</b></li> <li>8. Expert suggested reducing the contents of the units 4 and 5 of fluid mechanics and machines in IV semester curriculum. <b>Item no 04</b></li> </ol>
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<b>Action Taken</b>	<p>The Board further resolved to recommend the same to the UG/PG Academic committee for its approval in academic council.</p> <p>Point no 4 not approved in academic council and put in further deliberation and discussion.</p>	Responsibility Head ME	April 2017
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