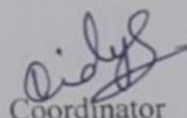


**Department of Chemical Engineering**  
**DAV University, Jalandhar**

**AGENDA: Board of Studies in the Subjects of B. Tech**

A meeting of the Board of Studies in the Department of Chemical Engineering is scheduled to be held on 28<sup>th</sup> April, 2018 at 02.00 p.m. in Room No. AD-4 (**Committee Room**), Administrative Block, DAV University, Jalandhar.

1. To discuss and approve the syllabi and courses for 2018 Batch admissions, for B. Tech (Chemical Engineering). The syllabi and courses are to be revised as per the guidelines of AICTE.
2. Any other item, that the members may feel relevant for discussion.



Coordinator

Department of Chemical Engineering

Dated: 26<sup>th</sup> April, 2018

**DAV University, Jalandhar**  
**Department of Chemical Engineering**

Ref. No. : DAVU/CUL/2018/16A

Dated: April 28, 2018

**Subject: Minutes of 3<sup>rd</sup> meeting of Board of Studies (BoS) held on 28/04/18**

The third meeting of Board of Studies (BoS) of Department of Chemical Engineering was held on 28/04/2018 at 02:00 p.m. in the committee room AD-4, Administrative Block.

Following members were present in the meeting:

- |                        |   |
|------------------------|---|
| 1. Er. Vidya Pandey    | Convener (Assistant Professor, Department of Chemical Engineering)    |
| 2. Er. Sunil Kumar     | Member (Assistant Professor, Department of Chemical Engineering)      |
| 3. Dr. Sharanjit Singh | Member (Assistant Professor, Department of Mechanical Engineering)    |
| 4. Dr. Manish Kumar    | Member (Assistant Professor, Department of Chemistry)                 |
| 5. Prof. A. P. Toor    | External Expert (Prof., Dr. SSB UICET, Panjab university, Chandigarh) |

**Item 1: Approval of Course Schemes and Syllabi of 2018 batch for Bachelor of Technology - Chemical Engineering**

The members of BoS discussed and approved the course scheme and syllabi of 2018 batch of Department of Chemical Engineering as per annexure-I.

**Resolved:** The BoS approved the Course Schemes and the Syllabi of the above mentioned course emphasizing on the following points:

- The credits of Professional Core Courses in current proposed scheme is 98, and the suggested credit for Professional core courses as per AICTE model curriculum is 48. As suggested by Dr. AP Toor, the credits of Professional Core Courses have been reduced to 85.
- The credits in Professional Core elective and Open elective in current proposed scheme are 16 and 8 respectively; and the suggested credit for Professional Core elective and Open elective as per AICTE model curriculum are 18 and 18 respectively. As suggested by Dr. AP Toor, the credits of Professional Core elective and Open elective have been changed to 19 and 16 respectively.
- The Swachhta Bharat Summer Internship Programme of credit 2 is also introduced in the summer vacation after second semester which will be evaluated in third semester. However for lateral entry (LEET) admission, students are advised to engage themselves in Swachhta mission as per their convenience during 3<sup>rd</sup> semester and may be evaluated accordingly for the same in the end of third semester.

Prof. A. P. Toor suggested the following:


1. The course Process Engineering Economics CHL310 in VI semester can be floated as professional core elective.
2. The professional core course Environmental Engineering CHL308 in VI semester can be floated as open elective.
3. The course Industrial safety and Hazard Management CHL406 in VIII semester can be floated as open elective.

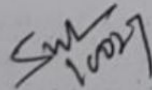
**Item 2: The any other items of discussion with the permission of chair**

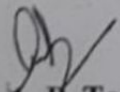
- Prof A. P. Toor advised that department should enrich its library with latest reference books and journals.
- Prof. A.P. Toor suggested that the department should organize special talks and seminars by experts from industries as well as from universities.

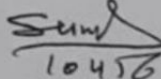
The members welcomed the suggestions of the Expert and assured her that the University would take the cognizance of her valuable input and would put up the same for the consideration of the University Academic Council.

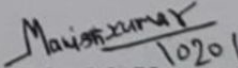
Meeting ended with thanks to the chair.

  
Er. Vidya Pandey  
(Convener)

  
Dr. Sharanjit Singh  
(Member)

  
Prof. A. P. Toor  
(External Expert)

  
Mr. Sunil Kumar  
(Member)

  
Dr. Manish Kumar  
(Member)

### Annexure- I

Members of BoS suggested the following modifications (keeping in view the feedback received from students and faculties) to the existing syllabus of 2018-19.

S. No.	Subject Code	Description
1.	CHL303A, CHL302, CHL306, CHL404, CHL457A	Minor changes in the syllabus
2.	CHL350 (Water conservation and management)	Introduced as new subject as Professional Elective Course
3.	CHL351 (Sustainability Engineering)	Introduced as new subject as Professional Elective Course
4.	CHL460 (Advanced Separation Processes)	Introduced as new subject as Professional Elective Course
5.	CHL405A	Credits changed from 4 to 3.

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**DAV University, Jalandhar**  
**Department of Chemical Engineering**

Ref. No. : DAVU/CHL/2020/53

Dated: 06/03/2020

**Subject: Minutes of 5<sup>th</sup> Board of Studies (BOS) meeting held on 06/03/2020**

The fifth meeting of Board of Studies (BOS) of Department of Chemical Engineering was held on 06/03/2020 at 02:00 p.m. in the Dean Office (AC Block).

Following members were present in the meeting:

1. Prof. A. P. Toor External Expert (Professor, Dr. SSBUICET, Panjab University, Chd)
2. Er. Vidya Pandey Convener (Assistant Professor, Department of Chemical Engineering)
3. Er. Pankaj Kumar Member (Assistant Professor, Department of Chemical Engineering)
4. Er. Shiva Dhiman Member (Assistant Professor, Department of Chemical Engineering)

5.

**Item 1: Approval of Course Schemes and Syllabi of 2020-21 batch for Bachelor of Technology - Chemical Engineering.**

The Course Scheme and detailed Syllabi of 2020-2021 batch for Bachelor of Technology - Chemical Engineering (*prepared according to model curriculum given by AICTE*) was presented to the Board of studies for its approval.

**Resolved:** The BoS approved the Course Schemes and the Syllabi of the above mentioned course emphasizing on the following points:

1. To consider and approve changes in scheme

After keenly observing the scheme, the committee suggested to rearrange the following subjects:

Subject Code	2019-20 scheme	2020-21 scheme
CHL208	5 <sup>th</sup> semester	3 <sup>rd</sup> semester
CHL302	5 <sup>th</sup> semester	4 <sup>th</sup> semester
CHL223	3 <sup>rd</sup> semester	4 <sup>th</sup> semester
CHL404	7 <sup>th</sup> semester	5 <sup>th</sup> semester
CHL306	6 <sup>th</sup> semester	5 <sup>th</sup> semester
CHL407	8 <sup>th</sup> semester	6 <sup>th</sup> semester
CHL304	4 <sup>th</sup> semester	7 <sup>th</sup> semester
CHL330	4 <sup>th</sup> semester	8 <sup>th</sup> semester

The courses CHL307A and CHL405 are added in professional core elective - I basket.

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**2. To consider and approve minor changes in the syllabus**

The Board considered and approved the minor changes in subjects having subject code CHL203, CHL305 and CHL457.

**Item 2:**

After discussion and deliberation about introducing the MOOC courses in the Department of Chemical Engineering, the following has been resolved by the Members, Board of Studies.

- i. The students may opt any relevant course from the list of NPTEL, SWAYAM courses available on its official website <http://nptel.ac.in>, <https://swayam.gov.in> respectively against elective courses of scheme.
- ii. The content of such MOOC courses should not match with regular subjects.
- iii. The student(s) will submit the application for opting MOOC course to the Coordinator of the department. The Coordinator of the department will forward the application to the Dean (Academics) office for permitting the students(s) to register after duly verification and recommendation from the concerned teacher taking the elective course of that particular class.
- iv. MOOC chosen against departmental elective has to be a technical course related to chemical engineering and for open elective course has to be from any other domain except chemical engineering.
- v. In case MOOC course chosen against any elective course is having the less credit than the elective course, the student should be allowed to opt the course by the university.
- vi. The grade marks along with copy of the certificate obtained by the student (s) from NPTEL, SWAYAM will be submitted to the Examination Branch (through the teacher concerned deputed by department through Coordinator of the department) for entering the marks/grades of the subject passed in the DMC.

**Note:** The students are advised to visit the website of NPTEL, SWAYAM for opting a particular course after following the procedure as per DAV University guidelines and are responsible for their registration as well as other terms and conditions to be fulfilled as laid down by NPTEL/SWAYAM.

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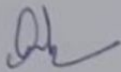
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**Item 3: The other items of discussion**

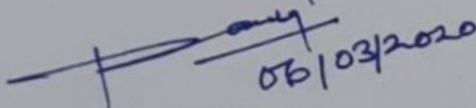
- Prof. A.P. Toor suggested that the department should organize workshops and seminars by experts from industries, IIT's/ NIT's/ Universities.

The members welcomed the suggestions of the Expert and assured her that the University would take the cognizance of her valuable input and would put up the same for the consideration of the University Academic Council.

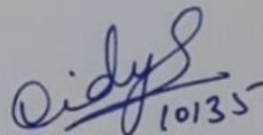
Meeting ended with thanks to all those present.



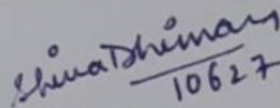
**Prof. A. P. Toor**  
(External Expert)



**Er. Pankaj Kumar**  
(Assistant Professor)



**Er. Vidya Pandey**  
(Head of Department)

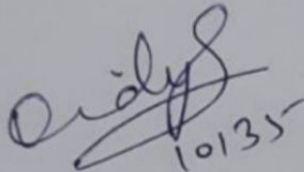


**Er. Shiva Dhiman**  
(Assistant Professor)

### Annexure- I

Members of BoS suggested (keeping in view the feedback received from students and faculties) the following in the scheme and syllabus of 2020-2021:

- Addition of 3 credit subject "Plant Utilities" under the subject code CHL307A
- Merger of Environment Engineering and Chemical Technology Lab into 2 credit laboratory course "Environment and Chemical Technology Laboratory" under the subject code CHL331.

  
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**DAV University, Jalandhar**  
**Department of Chemical Engineering**

Ref. No. : DAVU/CHL/2019/39

Dated: April 5th, 2019

**Subject: Minutes of 4<sup>th</sup> Board of Studies (BoS) meeting held on 5/04/19**

The Fourth meeting of Board of Studies (BoS) of Department of Chemical Engineering was held on 5/04/2019 at 02:00 p.m. in the committee room (Administrative Block).

Following members were present in the meeting:

1. Prof. A. P. Toor                      External Expert (Prof. Dr. SSB UICET, Panjab university, Chandigarh)
2. Er. Vidya Pandey                    Convener (Assistant Professor, Department of Chemical Engineering)
3. Er. Pankaj Kumar                    Member (Assistant Professor, Department of Chemical Engineering)
4. Er. Shiva Dhiman                    Member (Assistant Professor, Department of Chemical Engineering)

**Item 1:**                    Approval of Course Schemes and Syllabi of 2019 batch for Bachelor of Technology -Chemical Engineering.

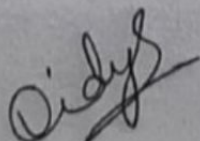
The Course Scheme and detailed Syllabi of 2019 batch for Bachelor of Technology -Chemical Engineering (*prepared according to model curriculum given by AICTE*) was presented to the Board of studies for its approval.

The members of BoS discussed and approved the course scheme and syllabi of 2019 batch of Department of Chemical Engineering as per annexure-I.

**Item 2:**

After discussion and deliberation about introducing the MOOC courses in the Department of Chemical Engineering, the following has been resolved by the Members, Board of Studies.

- i. The Students may opt any relevant course from the list of NPTEL, SWAYAM courses available on its official website <http://nptel.ac.in>, <https://swayam.gov.in> respectively against elective courses of scheme.
- ii. The content of such MOOC courses should not match with regular subjects.



- iii. The student(s) will submit the application for opting MOOC course to the Coordinator of the department. The Coordinator of the department will forward the application to the Dean (Academics) office for permitting the students(s) to register after duly verification and recommendation from the concerned teacher taking the elective course of that particular class.
- iv. MOOC chosen against departmental elective has to be a technical course related to chemical engineering and for open elective course has to be from any other domain except chemical engineering.
- v. In case MOOC course chosen against any elective course is having the less credit than the elective course, the student should be allowed to opt the course by the university.
- vi. The grade marks along with copy of the certificate obtained by the student (s) from NPTEL, SWAYAM will be submitted to the Examination Branch (through the teacher concerned deputed by department through Coordinator of the department) for entering the marks/ grades of the subject passed in the DMC.

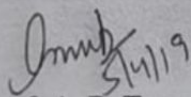
**Note:** The students are advised to visit the website of NPTEL, SWAYAM for opting a particular course after following the procedure as per DAV University guidelines and are responsible for their registration as well as other terms and conditions to be fulfilled as laid down by NPTEL/SWAYAM.

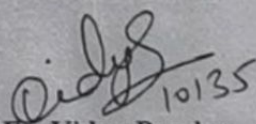
**Item 3: The other items of discussion**

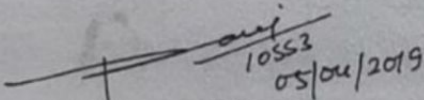
- Prof. A.P. Toor suggested that the department should organize special talks and seminars by experts from industries as well as from universities.

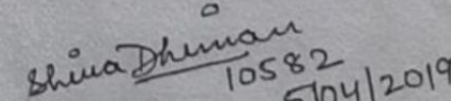
The members welcomed the suggestions of the Expert and assured her that the University would take the cognizance of her valuable input and would put up the same for the consideration of the University Academic Council.

Meeting ended with thanks to all those present.

  
**Prof. A. P. Toor**  
 (External Expert)

  
**Er. Vidya Pandey**  
 (Head of Department)

  
**Er. Pankaj Kumar**  
 (Assistant Professor)

  
**Er. Shiva Dhiman**  
 (Assistant Professor)



**DAV University, Jalandhar**  
**Department of Chemical Engineering**

Ref. No.: DAVU/CHL/2021/177

Dated: 11/06/2021

**Subject: Minutes of 6<sup>th</sup> Board of Studies (BOS) meeting held on 11/06/2021**

The sixth meeting of Board of Studies (BOS) of Department of Chemical Engineering was held on 11/06/2021 at 1:30 p.m. in the committee room (Administrative Block).

Following members were present in the meeting:

1. Prof. A. P. Toor                      External Expert (Professor, Dr. SSBUICT, Panjab University, Chd)
2. Er. Vidya Pandey                  Convener (Assistant Professor, Department of Chemical Engineering)
3. Dr. Rekha Gaba                    Special Invitee (Assistant Professor, Department of Chemistry)

**Item 1: Approval of Course Schemes and Syllabi of 2021-22 batch for Bachelor of Technology - Chemical Engineering.**

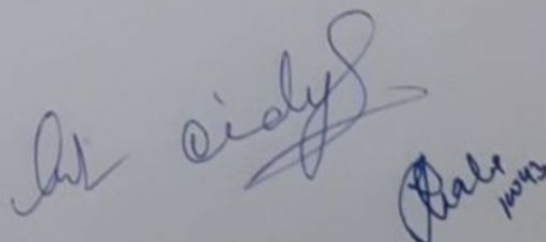
The Course Scheme and detailed Syllabi of 2021-2022 batch for Bachelor of Technology -Chemical Engineering (*prepared according to model curriculum given by AICTE*) was presented to the Board of studies for its approval.

**Resolved:** The BoS approved the outline of scheme, syllabi and courses of reading, as such, for the session 2021-2022 for Bachelor of Technology (Chemical Engineering).

**Item 2:**

After discussion and deliberation about introducing the MOOC courses in the Department of Chemical Engineering, the following has been resolved by the Members, Board of Studies.

- i. The students may opt any relevant course from the list of NPTEL, SWAYAM courses available on its official website <https://nptel.ac.in>, <https://swayam.gov.in> respectively against elective courses of scheme.
- ii. The content of such MOOC courses should not match with regular subjects.
- iii. The student(s) will submit the application for opting MOOC course to the Coordinator of the department. The Coordinator of the department will forward the application to the Dean (Academics) office for permitting the student(s) to register after duly verification and recommendation from the concerned teacher taking the elective course of that particular class.



- iv. MOOC chosen against departmental elective has to be a technical course related to chemical engineering and for open elective course has to be from any other domain except chemical engineering.
- v. In case MOOC course chosen against any elective course is having the less credit than the elective course, the student should be allowed to opt the course by the university.
- vi. The grade marks along with copy of the certificate obtained by the student (s) from NPTEL, SWAYAM will be submitted to the Examination Branch (through the teacher concerned deputed by department through Coordinator of the department) for entering the marks/grades of the subject passed in the DMC.

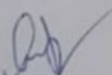
**Note:** The students are advised to visit the website of NPTEL, SWAYAM for opting a particular course after following the procedure as per DAV University guidelines and are responsible for their registration as well as other terms and conditions to be fulfilled as laid down by NPTEL/SWAYAM.

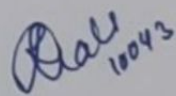
**Item 3:      The other items of discussion**

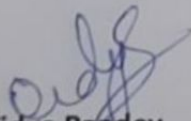
- Prof. A.P. Toor suggested that the department should organize workshops and seminars by experts from industries, IIT's/ NIT's/ Universities.

The members welcomed the suggestions of the Expert and assured her that the University would take the cognizance of her valuable input and would put up the same for the consideration of the University Academic Council.

Meeting ended with thanks to all those present.

  
**Prof. A. P. Toor**  
(External Expert)

  
**Dr Rekha Gaba**  
(Special invitee, Department of Chemistry)

  
**Er. Vidya Pandey**  
(Department Coordinator)



## Annexure- I

Members of BoS suggested the following modifications (keeping in view the feedback received from students and faculties) to the existing syllabus of 2020-21.

S. No.	Sub Code	Modification(addition/ deletion)
1	CHL202	<ul style="list-style-type: none"><li>• Combustion, gas-synthesis, acid-alkali production, recycle, purge, bypass in batch, stagewise and continuous operations in systems with chemical reaction(addition)</li></ul>
2	CHL208	<ul style="list-style-type: none"><li>• experimental techniques: FTIR, SEM for material characterization</li><li>• classification and structure and configuration of non crystalline/amorphous materials. (addition)</li><li>• Deletion of ' density of various materials'</li></ul>
3	CHL204	<ul style="list-style-type: none"><li>• Water for the chemical process industry and its treatment: Boiler feed-water, Cooling tower water, Process Plant water, Treatment of water: lime-soda process, Flocculation, aeration, deaeration, ion-exchange(addition)</li></ul>
4	CHL207	<ul style="list-style-type: none"><li>• <b>Miscellaneous measurements: Process instrumentation,</b> Recording instruments, indicating and signaling instruments, Transmission of instrument reading, control centre, Instrumentation diagram, Instrumentation in modern plant. Introduction to the concept of Automatic process control. (addition)</li></ul>
5	CHL303A	<ul style="list-style-type: none"><li>• Petroleum refining: General composition of crude oil, typical refinery operations for obtaining different useful products and their utilization for manufacture of other commercial products. (addition)</li></ul>
6	CHL453A	<ul style="list-style-type: none"><li>• Polymer Degradation and Polymer Reactor Design (addition)</li></ul>
7	CHL406	<ul style="list-style-type: none"><li>• Case histories: Bhopal gas tragedy, Flixborough disaster,</li></ul>

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		Pasadena accident, IOCL disaster, nuclear disaster in Japan in 2011 (addition)
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The subject code for the subject Fuel cell and technology is changed from CHL802 to CHL408.

*Diya*  
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**DAV University, Jalandhar**  
**Department of Chemical Engineering**

Ref. No.: DAVU/CHL/2021/177

Dated: 11/06/2021

**Subject: Minutes of 6<sup>th</sup> Board of Studies (BOS) meeting held on 11/06/2021**

The sixth meeting of Board of Studies (BOS) of Department of Chemical Engineering was held on 11/06/2021 at 1:30 p.m. in the committee room (Administrative Block).

Following members were present in the meeting:

1. Prof. A. P. Toor                      External Expert (Professor, Dr. SSBUICT, Panjab University, Chd)
2. Er. Vidya Pandey                  Convener (Assistant Professor, Department of Chemical Engineering)
3. Dr. Rekha Gaba                    Special Invitee (Assistant Professor, Department of Chemistry)

**Item 1: Approval of Course Schemes and Syllabi of 2021-22 batch for Bachelor of Technology - Chemical Engineering.**

The Course Scheme and detailed Syllabi of 2021-2022 batch for Bachelor of Technology -Chemical Engineering (*prepared according to model curriculum given by AICTE*) was presented to the Board of studies for its approval.

**Resolved:** The BoS approved the outline of scheme, syllabi and courses of reading, as such, for the session 2021-2022 for Bachelor of Technology (Chemical Engineering).

**Item 2:**

After discussion and deliberation about introducing the MOOC courses in the Department of Chemical Engineering, the following has been resolved by the Members, Board of Studies.

- i. The students may opt any relevant course from the list of NPTEL, SWAYAM courses available on its official website <https://nptel.ac.in>, <https://swayam.gov.in> respectively against elective courses of scheme.
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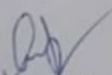
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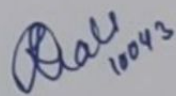
**Item 3: The other items of discussion**

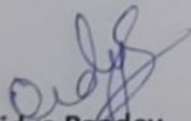
- Prof. A.P. Toor suggested that the department should organize workshops and seminars by experts from industries, IIT's/ NIT's/ Universities.

The members welcomed the suggestions of the Expert and assured her that the University would take the cognizance of her valuable input and would put up the same for the consideration of the University Academic Council.

Meeting ended with thanks to all those present.

  
**Prof. A. P. Toor**  
(External Expert)

  
**Dr Rekha Gaba**  
(Special invitee, Department of Chemistry)

  
**Er. Vidya Pandey**  
(Department Coordinator)



### Annexure- I

Members of BoS suggested the following modifications (keeping in view the feedback received from students and faculties) to the existing syllabus of 2020-21.

S. No.	Sub Code	Modification(addition/ deletion)
1	CHL202	<ul style="list-style-type: none"><li>• Combustion, gas-synthesis, acid-alkali production, recycle, purge, bypass in batch, stagewise and continuous operations in systems with chemical reaction(addition)</li></ul>
2	CHL208	<ul style="list-style-type: none"><li>• experimental techniques: FTIR, SEM for material characterization</li><li>• classification and structure and configuration of non crystalline/amorphous materials. (addition)</li><li>• Deletion of ' density of various materials'</li></ul>
3	CHL204	<ul style="list-style-type: none"><li>• Water for the chemical process industry and its treatment: Boiler feed-water, Cooling tower water, Process Plant water, Treatment of water: lime-soda process, Flocculation, aeration, deaeration, ion-exchange(addition)</li></ul>
4	CHL207	<ul style="list-style-type: none"><li>• <b>Miscellaneous measurements: Process instrumentation,</b> Recording instruments, indicating and signaling instruments, Transmission of instrument reading, control centre, Instrumentation diagram, Instrumentation in modern plant. Introduction to the concept of Automatic process control. (addition)</li></ul>
5	CHL303A	<ul style="list-style-type: none"><li>• Petroleum refining: General composition of crude oil, typical refinery operations for obtaining different useful products and their utilization for manufacture of other commercial products. (addition)</li></ul>
6	CHL453A	<ul style="list-style-type: none"><li>• Polymer Degradation and Polymer Reactor Design (addition)</li></ul>
7	CHL406	<ul style="list-style-type: none"><li>• Case histories: Bhopal gas tragedy, Flixborough disaster,</li></ul>

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		Pasadena accident, IOCL disaster, nuclear disaster in Japan in 2011 (addition)
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The subject code for the subject Fuel cell and technology is changed from CHL802 to CHL408.

*Diya*  
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