

### DACUM Panel

1. Mr. Rajendra Prasad Bhatta, Lab Supervisor  
Himal Dental Hospital, Kathmandu
2. Mr. Hari Prasad Chaudhary, Lab Assistant  
Himal Dental Hospital, Kathmandu
3. Mr. Shiva Sigdel, CDS  
Himal Dental Hospital, Kathmandu
4. Mr. M.D. Masoom, Lab Technician, Vita  
Dental Lab, Kathmandu
5. Mr. Arjun Kumar Mahato, Lab Technician,  
Sanjeeb Dental Lab, Kathmandu
6. Mr. Amar Bahadur Thanait, Lab Technician,  
Sanjeeb Dental Lab, Kathmandu
7. Mr. Shyam Nandan Mahato, Lab Technician,  
Parfect Dental Lab, Kathmandu
8. Mr. Raj Kumar Rai, Lab Assistant, Parfect  
Dental Lab, Kathmandu
9. Mr. Sanjeeb Kumar Mahato, Lab Technician,  
Sanjeeb Dental Lab, Kathmandu

### DACUM Facilitator/Co-Facilitator

Mr. Suresh Bhaala,  
Sr. Skill Testing Officer, NSTB  
Mr. Ishwar Chandra Ghimire  
Skill Testing Officer, NSTB

### Verification Panel

1. Dr. Deepti Shrestha, Assistant Professor,  
Kedia Dental College, Kathmandu
2. Dr. Naresh Yadav, Himal Dental  
Hospital, Kathmandu
3. Dr. Riyaz Ahamad, Om Samaj Dental  
Hospital, Chabahil, Kathmandu
4. Ms. Shrutec Nakarmi, People's Dental  
College and Hospital, Kathmandu
5. Mr. Hasta Bahadur Basnet, Sr.  
Technician, Everest Dental Clinic & Lab,  
Chabahil
6. Mr. Dinesh Adhikari, Sr. Technician,  
National Dental Lab, Chabahil
7. Mr. Suraj Shah, Sr. Technician Shah  
Confident Dental Lab, Naxal, Kathmandu
8. Mr. Daniel Tamang, Sr. Technician,  
Himal Dental Lab, Chabahil, Kathmandu
9. Ms. Sadhana Adhikari, Kantipur Dental  
Hospital, Basundhara, Kathmandu
10. Mr. Tek Bahadur K.C., Supervisor,  
Himal Dental Hospital, Chabahil
11. Mr. Masoom Ali, Vita Dental Lab,  
Kathmandu
12. Mr. Ram Swarap Mahato, Sr.  
Technician, Om Dental Lab, Ranibari,  
Kathmandu

### DACUM Facilitator/Co-Facilitator

Mr. Ram Hari Devkota  
Dep. Director, NSTB  
Mr. Ishwar Chandra Ghimire  
Skill Testing Officer, NSTB

### Technical Sub-Committee

1. Dr. Ram Prasad Pokhrel, Coordinator, Health  
Technical Sub Committee
2. Mr. Chandra Bhakta Nakarmi - Member  
Director, NSTB, Bhaktapur
3. Dr. Supraphat Shrestha, - Member  
Orthodontics, Himal Dental Hospital, Chabahil,  
Kathmandu
4. Dr. Deepti Shrestha - Member  
Endodontics, M.B. Kedia Dental Institute  
Pvt. Ltd., Birgung, Parsa
5. Dr. Dipak Thapa - Member  
Prosthodontics, and Managing Director, Prime  
Dental Care, Jawalakhel, Kathmandu
6. Dr. Manoj Humagain - Member  
Periodontics, Kathmandu University  
Hospital, Dhulikhel, Kavre
7. Dr. Krishna K.C. - Member  
Oral and Maxillofacial Surgeon, TU Teaching  
Hospital, Maharajgunj and Representative  
Nepal Dental Association, Kathmandu
8. Mr. Ram Hari Devkota - Member  
Dy- Director, NSTB, Bhaktapur
9. Mr. Ishwar Chandra Ghimire - Member  
Skill Testing Officer, NSTB, Bhaktapur

# Occupational Profile



## Assistant Dental Lab Technician, L-1

(DACUM Workshop on 18 & 19 February, 2011)

(Customized DACUM Workshop on 23 February, 2011)

(Technical Sub Committee Meeting 17 March, 2011)



Council For Technical Education and Vocational Training

**NATIONAL SKILL TESTING BOARD**

Madyapur Thimi 17, Sanothimi, Bhaktapur

**Nepal**

(NSTB approval date .....)

## DUTIES and TASKS

### A. Prepare the Cast/Models for Prosthodontic

|                              |            |           |                                 |            |           |   |            |           |                                  |            |           |
|------------------------------|------------|-----------|---------------------------------|------------|-----------|---|------------|-----------|----------------------------------|------------|-----------|
| A1. Disinfect the impression |            |           | A2. Mix die stone /dental stone |            |           | A3. Pour the cast with die stone/dental stone |            |           | A4. Prepare the base of the cast |            |           |
| Task rating                  |            |           | Task rating                     |            |           | Task rating                                   |            |           | Task rating                      |            |           |
| Importance                   | Difficulty | Frequency | Importance                      | Difficulty | Frequency | Importance                                    | Difficulty | Frequency | Importance                       | Difficulty | Frequency |
| 3                            | 1          | 3         | 3                               | 2          | 3         | 3   | 2          | 3         | 3                                | 2          | 3         |
| A5. Trim the cast            |            |           |                                 |            |           |   |            |           |                                  |            |           |
| Task rating                  |            |           |                                 |            |           |   |            |           |                                  |            |           |
| Importance                   | Difficulty | Frequency |                                 |            |           |   |            |           |                                  |            |           |
| 3                            | 2          | 3         |                                 |            |           |   |            |           |                                  |            |           |

### B. Assist to Make Removable Partial Denture (RPD) and Acrylic Crown

|                                    |            |           |  |            |           |                                     |            |           |                              |            |           |
|------------------------------------|------------|-----------|--|------------|-----------|-------------------------------------|------------|-----------|------------------------------|------------|-----------|
| B1. Prepare temporary denture base |            |           | B2. Prepare C clasp                                |            |           | B3. Set teeth for RPD               |            |           | B4. Perform flasking         |            |           |
| Task rating                        |            |           | Task rating  |            |           | Task rating                         |            |           | Task rating                  |            |           |
| Importance                         | Difficulty | Frequency | Importance   | Difficulty | Frequency | Importance                          | Difficulty | Frequency | Importance                   | Difficulty | Frequency |
| 3                                  | 2          | 3         | 3  | 2          | 3         | 3                                   | 3          | 3         | 3                            | 3          | 3         |
| B5. Perform dewaxing               |            |           | B6. Apply separating media                         |            |           | B7. Mix heat cure acrylic materials |            |           | B8. Perform material packing |            |           |
| Task rating                        |            |           | Task rating  |            |           | Task rating                         |            |           | Task rating                  |            |           |
| Importance                         | Difficulty | Frequency | Importance   | Difficulty | Frequency | Importance                          | Difficulty | Frequency | Importance                   | Difficulty | Frequency |
| 3                                  | 2          | 3         | 3  | 1          | 3         | 3                                   | 1          | 3         | 3                            | 2          | 3         |
| B9. Perform curing                 |            |           | B10. Prepare tooth form by sprinkle method (crown) |            |           |                                     |            |           |                              |            |           |
| Task rating                        |            |           | Task rating  |            |           |                                     |            |           |                              |            |           |
| Importance                         | Difficulty | Frequency | Importance   | Difficulty | Frequency |                                     |            |           |                              |            |           |
| 3                                  | 3          | 3         | 3  | 3          | 2         |                                     |            |           |                              |            |           |

### C. Prepare Complete Denture (CD)

|                                    |            |           |                                       |            |           |                               |            |           |   |            |           |
|------------------------------------|------------|-----------|---------------------------------------|------------|-----------|-------------------------------|------------|-----------|---|------------|-----------|
| C1. Fabricate acrylic special tray |            |           | C2. Fabricate base plate special tray |            |           | C3. Pour the final impression |            |           | C4. Prepare temporary denture base for CD |            |           |
| Task rating                        |            |           | Task rating                           |            |           | Task rating                   |            |           | Task rating                               |            |           |
| Importance                         | Difficulty | Frequency | Importance                            | Difficulty | Frequency | Importance                    | Difficulty | Frequency | Importance                                | Difficulty | Frequency |
| 3                                  | 3          | 3         | 3                                     | 1          | 1         | 3                             | 3          | 3         | 3   | 2          | 3         |
| C5. Prepare occlusal rim           |            |           | C6. Articulate the cast               |            |           |                               |            |           |   |            |           |
| Task rating                        |            |           | Task rating                           |            |           |                               |            |           |   |            |           |
| Importance                         | Difficulty | Frequency | Importance                            | Difficulty | Frequency |                               |            |           |   |            |           |
| 3                                  | 2          | 3         | 3                                     | 2          | 3         |                               |            |           |   |            |           |

### D. Prepare Orthodontic Appliances

|                                    |            |           |                                 |            |           |                                  |            |           |                         |            |           |
|------------------------------------|------------|-----------|---------------------------------|------------|-----------|----------------------------------|------------|-----------|-------------------------|------------|-----------|
| D1 Prepare orthodontic model       |            |           | D2. Prepare short labial bow    |            |           | D3. Prepare long labial bow      |            |           | D4. Prepare Adams clasp |            |           |
| Task rating                        |            |           | Task rating                     |            |           | Task rating                      |            |           | Task rating             |            |           |
| Importance                         | Difficulty | Frequency | Importance                      | Difficulty | Frequency | Importance                       | Difficulty | Frequency | Importance              | Difficulty | Frequency |
| 3                                  | 2          | 2         | 3                               | 3          | 2         | 3                                | 3          | 2         | 3                       | 3          | 3         |
| D5. Manipulate cold cure materials |            |           | D6. Prepare bite plate anterior |            |           | D7. Prepare bite plate posterior |            |           |                         |            |           |
| Task rating                        |            |           | Task rating                     |            |           | Task rating                      |            |           |                         |            |           |
| Importance                         | Difficulty | Frequency | Importance                      | Difficulty | Frequency | Importance                       | Difficulty | Frequency |                         |            |           |
| 3                                  | 2          | 3         | 2                               | 2          | 1         | 2                                | 2          | 1         |                         |            |           |

### E. Perform Repair Maintenance

|                                  |            |           |               |            |           |                              |            |           |                                  |            |           |
|----------------------------------|------------|-----------|---------------|------------|-----------|------------------------------|------------|-----------|----------------------------------|------------|-----------|
| E1. Repair RPD                   |            |           | E2. Repair CD |            |           | E3. Repair orthodontic plate |            |           | E4. Reline Complete Denture (CD) |            |           |
| Task rating                      |            |           | Task rating   |            |           | Task rating                  |            |           | Task rating                      |            |           |
| Importance                       | Difficulty | Frequency | Importance    | Difficulty | Frequency | Importance                   | Difficulty | Frequency | Importance                       | Difficulty | Frequency |
| 3                                | 2          | 2         | 3             | 2          | 2         | 3                            | 2          | 1         | 3                                | 2          | 1         |
| E5. Rebase Complete Denture (CD) |            |           |               |            |           |                              |            |           |                                  |            |           |
| Task rating                      |            |           |               |            |           |                              |            |           |                                  |            |           |
| Importance                       | Difficulty | Frequency |               |            |           |                              |            |           |                                  |            |           |
| 3                                | 2          | 1         |               |            |           |                              |            |           |                                  |            |           |

## DUTIES and TASKS

### F. Perform Finishing

|                                    |            |           |                       |            |           |                               |            |           |                                      |            |           |
|------------------------------------|------------|-----------|-----------------------|------------|-----------|-------------------------------|------------|-----------|--------------------------------------|------------|-----------|
| F1. Perform CD/RPD carving         |            |           | F2. Trim CD/RPD       |            |           | F3. Trim acrylic crown bridge |            |           | F4. Perform acrylic bridge carving   |            |           |
| Task rating                        |            |           | Task rating           |            |           | Task rating                   |            |           | Task rating                          |            |           |
| Importance                         | Difficulty | Frequency | Importance            | Difficulty | Frequency | Importance                    | Difficulty | Frequency | Importance                           | Difficulty | Frequency |
| 3                                  | 3          | 3         | 3                     | 3          | 3         | 3                             | 3          | 3         | 3                                    | 3          | 3         |
| F5. cut the flash by using carbide |            |           | F6. finish with stone |            |           | F7. Finish with sand paper    |            |           | F8. Polish/finish with pumice slurry |            |           |
| Task rating                        |            |           | Task rating           |            |           | Task rating                   |            |           | Task rating                          |            |           |
| Importance                         | Difficulty | Frequency | Importance            | Difficulty | Frequency | Importance                    | Difficulty | Frequency | Importance                           | Difficulty | Frequency |
| 3                                  | 3          | 3         | 3                     | 3          | 3         | 3                             | 3          | 3         | 3                                    | 3          | 3         |
| F9. Polish with polishing cake     |            |           |                       |            |           |                               |            |           |                                      |            |           |
| Task rating                        |            |           |                       |            |           |                               |            |           |                                      |            |           |
| Importance                         | Difficulty | Frequency |                       |            |           |                               |            |           |                                      |            |           |
| 3                                  | 3          | 3         |                       |            |           |                               |            |           |                                      |            |           |

### G. Perform Communication

|  |            |           |  |            |           |                                    |            |           |                                 |            |           |
|--|------------|-----------|--|------------|-----------|------------------------------------|------------|-----------|---------------------------------|------------|-----------|
| G1. Communicate with hospital/lab management |            |           | G2. Communicate with customer                  |            |           | G3. Communicate with senior/junior |            |           | G4. Communicate with colleagues |            |           |
| Task rating                                  |            |           | Task rating                                    |            |           | Task rating                        |            |           | Task rating                     |            |           |
| Importance                                   | Difficulty | Frequency | Importance                                     | Difficulty | Frequency | Importance                         | Difficulty | Frequency | Importance                      | Difficulty | Frequency |
| 3  | 2          | 1         | 3  | 2          | 2         | 3                                  | 1          | 1         | 2                               | 2          | 2         |
| G5. Communicate with suppliers               |            |           | G6. Communicate with professional organization |            |           |                                    |            |           |                                 |            |           |
| Task rating                                  |            |           | Task rating                                    |            |           |                                    |            |           |                                 |            |           |
| Importance                                   | Difficulty | Frequency | Importance                                     | Difficulty | Frequency |                                    |            |           |                                 |            |           |
| 3  | 1          | 1         | 3  | 2          | 2         |                                    |            |           |                                 |            |           |

### H. Develop Professionalism

|                             |            |           |                              |            |           |                                     |            |           |                                |            |           |
|-----------------------------|------------|-----------|------------------------------|------------|-----------|-------------------------------------|------------|-----------|--------------------------------|------------|-----------|
| H1. Participate in training |            |           | H2. Visit related Laboratory |            |           | H3. Participate in seminar/workshop |            |           | H4. Watch related T.V. program |            |           |
| Task rating                 |            |           | Task rating                  |            |           | Task rating                         |            |           | Task rating                    |            |           |
| Importance                  | Difficulty | Frequency | Importance                   | Difficulty | Frequency | Importance                          | Difficulty | Frequency | Importance                     | Difficulty | Frequency |
| 3                           | 2          | 1         | 2                            | 2          | 2         | 2                                   | 2          | 2         | 3                              | 2          | 1         |
| H5. Read newspaper          |            |           |                              |            |           |                                     |            |           |                                |            |           |
| Task rating                 |            |           |                              |            |           |                                     |            |           |                                |            |           |
| Importance                  | Difficulty | Frequency |                              |            |           |                                     |            |           |                                |            |           |
| 3                           | 1          | 2         |                              |            |           |                                     |            |           |                                |            |           |

**Rating options:**

1= Low      2= Medium      3= High  
 0= No      1= Low      2= Medium

## Additional Information for Job Title

|  |  |   |
|--|--|---|
| <p style="text-align: center;"><b><u>Worker Trait</u></b></p> <ul style="list-style-type: none"> <li>• Polite</li> <li>• Creative</li> <li>• Punctual</li> <li>• Helpful</li> <li>• Neat and Tidy</li> <li>• Sincere</li> <li>• Tactful</li> <li>• Service Oriented</li> <li>• Healthy</li> <li>• Hard working</li> <li>• Faithful</li> <li>• Confidential</li> <li>• Patience</li> </ul>  | <p style="text-align: center;"><b><u>Entry Requirement</u></b></p> <ul style="list-style-type: none"> <li>• 3 months (390 hours) training<br/>or</li> <li>• As per NSTB Rules</li> </ul> | <p style="text-align: center;"><b><u>Career Path</u></b></p> <ul style="list-style-type: none"> <li>• Dental Lab Technician, L-2</li> </ul>   |
| <p style="text-align: center;"><b><u>Related Technical Knowledge</u></b></p> <p>Knowledge on :</p> <ul style="list-style-type: none"> <li>• Different types of teeth setting.</li> <li>• Gypsum products.</li> <li>• Impression materials.</li> <li>• Different types impression tray.</li> <li>• Identification of teeth.</li> <li>• Bite block.</li> <li>• Special tray.</li> <li>• Spacer.</li> <li>• Teeth shade selection.</li> <li>• Manipulation of Gypsum products.</li> <li>• Steps of CD/RPD fabrication.</li> <li>• Flasking and deflasking</li> <li>• Application of separating media.</li> <li>• Packing procedure.</li> <li>• Curing.</li> <li>• Denture porosities.</li> <li>• Setting of acrylic material.</li> <li>• Dental waxes.</li> <li>• Articulators.</li> <li>• Teeth setting procedures.</li> <li>• Margins and contact point of teeth.</li> <li>• Heat cure and cold cure materials.</li> <li>• Common removable ortho appliances.</li> <li>• Operation of micro motor, hanging motor and lathe machine.</li> <li>• Types of orthodontic wires.</li> <li>• Repairing procedure of CD/RPD and ortho plate.</li> <li>• Dental lab safety.</li> <li>• Disinfectants.</li> </ul> |  | <p style="text-align: center;"><b><u>Tools and equipment</u></b></p> <ul style="list-style-type: none"> <li>• Wax knife</li> <li>• Lacron carver</li> <li>• Spirit lamp</li> <li>• Wire cutter</li> <li>• Pliers</li> <li>• Wire (different gauge)</li> <li>• Flask</li> <li>• Clamp</li> <li>• Stove</li> <li>• Hammer</li> <li>• Model trimmer</li> <li>• Plaster nibler</li> <li>• Acrylic trimmer</li> <li>• Burs</li> <li>• Vacuum mixer</li> <li>• Rubber bowl</li> <li>• Spatula (Wax &amp; Plaster)</li> <li>• Camel hair brush</li> <li>• BP Blade, knife, holder</li> <li>• Articulator</li> <li>• Hot plate spatula</li> <li>• Paper mandrel</li> <li>• Sand paper</li> <li>• Cotton buff</li> <li>• Dappen dish</li> <li>• Disc mandrel</li> <li>• Chip blower</li> <li>• Plaster dispenser</li> <li>• Acrylizer</li> <li>• Vibrator</li> <li>• McIntosh Sheet</li> </ul> |