Course Content Sample

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Certificate of Pre-Apprenticeship in Goldsmithing & Jewellery
NZQA Learner Achievement: Level 4

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Cover picture: Peter working at the bench

Course Content for Pre Apprenticeship Course		
Local Course Exercise List:		
Order	Exercise	
1	1.1A	30mm square.
2	1.1B	30 mm domed square.
3	1.1C	30mm square and cap.
4	1.1D	30mm domed square with stone holes, & 20mm domed cap.
5	1.8	35mm x 5mm strip with 8 pierced stone holes.
6	1.9	35mm x 5mm strip with 8 pierced stone holes, bezel brooch fittings.
7	1.2	Swaged 'D' shape wedding ring.
8	1.11	5mm x 3mm "D" shaped wedding ring with diagonal fluting.
9	1.6	Star of David marking out and piercing.
10	1.3	3mm 'D' shape ring with 1.5mm half round wire edges on a base ring.
11	1.4	3mm 'D' Shape wedding ring with triple edges.
12	1.10	22mm x 22mm Rhomboid with 3.5mm rim opened 8 holes each side.
13	1.7	Monogram pendant.
14	1.12	Tapered Tiffany 6 claw setting for a 6mm diameter stone, in a half round shank.
15	1.13	The 6 claw organ pipe setting for a 6mm diameter round stone.
16	1.14	The 6 claw organ pipe setting for a 6mm diameter round stone and a hammered up knife-edge shoulder with a half round shank.
17	1.15	Classic bridge claw setting for a 6mm round stone.
18	1.17	Twin 6 claw oval bridge claw setting, to take an 8mm x 6mm oval faceted gem stone.
19	1.16	Mitred 6.6mm square setting with four corner claws to fit a 5.5mm square faceted gemstone.
20	1.16A	Mitred 6.6mm square setting with a keyhole opening to fit a 5.5mm square faceted gem stone.
21	1.16B	Square setting with a 6mm princess cut stone with drop on spear shoulders with a half round shank. Size M.
22	1.18	The 6 claw oval fluted organ pipe setting, to take a 8mm x 6mm oval faceted gemstone.
23	1.20	Pear shape setting with 5 claws to fit a 7mm x 10.5mm faceted gemstone.
24	1.21	Pear shape setting with 5 claws to fit a 6mm x 9mm faceted gemstone. Fitted to a hammered up knife-shank shank.
25	1.22	38mm diameter domed disc, with 16 segmented convex and concave grooves.
26	1.19	The 6 claw oval fluted organ pipe setting, to take a 9mm x 7mm oval faceted gemstone. Fit to a dived shank with marquis shape shoulder.
27	1.23	Single stone crossover ring with a rubover setting.
28	1.23A	Single stone crossover ring with 4 double claw "Pipin" setting.
29	1.24	4mm wide x 2mm thick, fitted half round wedding ring to sit beside the single stone crossover ring.
30	1.25	8mm wide x 2mm thick, forged warm square wedding ring.
31	1.26	5mm wide x 3mm thick channel set wedding ring to take five 3.5mm square stones, forged finger shape, ring.
32	1.32	Simple 3 stone rub-over setting ring with a tapered heavy half round shank, with soft rounded shoulders. Stone size's one 6mm and two 5mm round gem stones.
33	1.33	Simple 3 stone Moon-gate setting ring with a classic spear shape shoulder. Stone sizes one 6mm and two 5mm round gemstones.
34	1.37	Make a classic three stone organ pipe setting, crossover ring.
35	1.34	Classic three stone Bridge Claw setting with a fancy Fleur-de-Lis shoulders.
36	1.36	To design a simple 'Bow' brooch, and construct in silver with a hand made pin and catch.
37	1.5	Roman set 6mm diameter round stone ring on a 3mm swaged shank.
38	1.27	Design a half pierced template for the production of a ring master pattern. Design based on a Maori rafter pattern.
39	1.28	Make a vulcanised rubber mould for the half pierced Maori rafter pattern master pattern ring.
40	1.29	The steps of cleaning up a casting, by hand, of the Maori rafter master pattern ring.
41	1.30	The steps of cleaning up a casting, using mechanical finishing equipment, of the Maori rafter master pattern ring.
42	1.31	From a natural Ivy leaf, used as a template, produce a chased silver brooch.
43	1.35	To take a design based on Islamic Art, produce an original drawing and transfer to a sheet of silver. Pierce out design.

General Knowledge and Design Exercises	
1.38	General Knowledge –OSH –Safe practise.
1.39	General Knowledge – Workshop etiquette.
1.40	General Knowledge – Recovery of metals.
1.41	General Knowledge – Keeping the workshop clean.
1.42	General Knowledge
1.43	Gemmology
1.44	Design

View of workshop

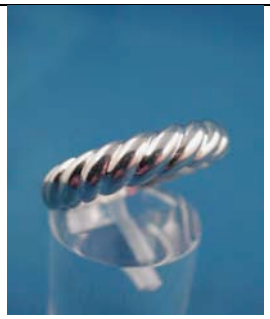
Course Content for Pre Apprenticeship Course		
Exercise Description: 5mm x 3mm 'D' shaped wedding ring with diagonal fluting.		
Exercise Number: 1:11	Version: 1:2	
References:	Master Sample 1:11	
General:	♣ Time allocated: 16 – 24 hours ♣ Ring Size "O" ♣ Time is set & assessed on each exercise. The students must demonstrate time usage on the job sheet. ♣ The frugality of metal is essential so that waste is minimalised. Being vigilant about the wastage of wire & Chenier forms. The student must demonstrate care in the collection of lemel & scrap metal.	
Moderation / Assessment Notes:		
Schedule A	All categories listed on the Assessment Record	
Average pass required	85% of total marks available	

Element	Exercise Description	Evidence Required
11.1	Mill 5mm square bar of Sterling Silver to 4.5mm x 3.5mm in flat rolling mills.	♣ The exercise has a tolerance of plus or minus 0.1mm. There is no allowance in ring sizes. The ring will be measured through the middle of the ring. ♣ The student must demonstrate the making of an exercise to best standard practise. All procedures are to be carried out in accordance with the current OSH System. Unsafe practises will have an impact on final marks. ♣ The students must have control and demonstrate accuracy in the use of the piercing saw as a file. They must achieve a clean sharp finish to their work and be able to cut as close to, but not over, the line of design. ♣ The exercise will be assessed on cleanliness of job, crispness of cut, evenness of surface & accuracy of shape. ♣ A good solder join must be invisible. The student must demonstrate this in their work. Too much or too little solder, pinholes & cleanliness of joins will impact on final marks. ♣ The exercise will be assessed on the fitting of the components to each other & the all finished appearance. ♣ The exercises will be assessed on the form & accuracy & the overall finished appearance.
11.2	Anneal, pickle & rinse.	
11.3	Mill in half round rolling mills or swage half round.	
11.4	Anneal, pickle & rinse.	
11.5	Turn in half round pliers or ring-bending machine to the finger size required.	
11.6	Produce a perfect joint and solder with hard silver solder. Pickle & Rinse.	
11.7	Clean up join and mallet round, bring to size required with ring makers size punches, file and emery paper to 1000 grit.	
11.8	Anneal, pickle & rinse. With dividers mark the centre ling on the rings outer circumference.	
11.9	Select from Ring Makers division charts, the graduation of division required. This will depend on the finger size and the width of the flute required.	
11.10	Lay ring blank over chart, hold firmly in place, and scribe of divisions with care.	
11.11	With an angled saw (working off one edge of the blades width), mark of the divisions lightly over the whole half round surface of shank.	
11.12	With an angled saw, mark the diagonal lines from one division to the next all round the rings circumference.	
11.13	Cut through these diagonal lines to the depth of a saw blade ring down the edge on both sides of the ring.	
11.14	With a course three-square needle file open up this saw cut all round the shank in an even manner.	
11.15	With a course "cut back three square needle file" round all the divisions in "rope" like flutes.	
11.16	Emery 280, 1000 and 1200 grit paper in side and out side the ring.	
11.17	Tripoli and rouge polish.	

Outcome:

This exercise introduces the students to a new way of achieving Exercise 1:2.
It gives the student the challenge of marking out a difficult job, and offers a challenging filing exercise.
It introduces:

a) Half round rolling mills instead of swaging.
b) The ring-bending machine instead of the half round pliers.
c) The ring maker's division charts.

Course Content for Pre Apprenticeship Course						
Exercise Description: 5mm x 3mm 'D' shaped wedding ring with diagonal fluting. Ring Size "O"						
Exercise Number: 1:11			Version: 1:3			
Start date:			Time Allowance: 16-24hrs			
Name:						
Element evidence			Description	Tick	Time taken	Tutor
1	TO	5		o		
6	TO	8		o		
9	TO	10		o		
11	TO	12		o		
13	TO	16		o		
17				o		

Maximum Marks	Marking Schedule: A	Exercise Assessment Mark
20	Dimensions & Marking out	
10	Working Practice and OSH	
10	Saw work	
30	Filing	
5	Soldering	
5	Construction & Procedure	
10	Interpretation	
5	Metal usage	
5	Time	
100 Marks available	Total marks	
85 Marks to pass	Total %	

Student to indicate actual hours spent on the job.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning					
Afternoon					

χ Extra Metal issued: _____ Grams

Assessors Comments:

2nd Year of Diploma Course Content		
Local Course Exercise List:		
Order	Exercise	
1	2.3	Marquise shape, end set 6 claw setting 12mm x 6mm in Tiffany style
2	2.4	3 Stone ring with a marquise shape setting 10mm x 5mm with 2 x 6mm x 4mm pear shape shoulders stones. Hammered up knife edge shank. Shank size O.
3	2.7	Make a forged diamond set faceted wedding ring, 4.5mm wide by 2.8mm deep on the corners. 1.5mm – 1.8mm between corners. To a specified finger size. This ring will have stones set on the facets as well as the top surface.
4	2.5	Forged warm square wedding ring. 8mm wide with 2.6mm thick corners, to specified finger size.
5	2.1	Make a pendant based on Islamic Art
6	2.8	Make a 3mm x 1.8mm 'D' shape wedding ring. Size M. Add three sizes with a dovetail joint. Size down one size, using the ring stretching machine, and then size up two sizes.
7	2.15	Make a simple four claw French wire setting to fit a 5mm round stone.
8	2.15a	Make a simple four claw French wire setting to fit a 5mm round stone with double wire shank. Size L on finger
9	2.16	Make a three stone French wire setting ring. 1 x 5mm stone, 2 x 4mm round stones. With a triple wire shank and wire shoulders. Shank size K.
10	2.21a	Eternity Ring with a complete circle of 2.5mm round stones.
11	2.21	Eternity Ring with a complete circle of 2.5mm square stones
12	2.27	Bracelet with tube settings jointed with pullovers
13	2.28	Flat bracelet with Chenier & pin joint
14	2.9	Make a Pearl Catch with Diamond set décor to design supplied.
15	2.29	Square block bracelet links with double pullover joint
16	2.30	Box Snap
17	2.25	Make a 6 twin claw 12mm x 10mm oval basket setting for a size N ring with twin plate shanks.
18	2.33	Make a 4 claw 10mm x 8mm Octagonal basket setting. Shank size N ring with split shanks.
19	2.32	Make an Abstract Cluster with twin plate shank. Size O on finger with stabilisers
20	2.31	Make a spray ribbon brooch with handmade pin and catch
21	2.26	Make a 4 claw 14mm x 10mm octagonal basket claw setting for a ring with 3 x 2.5mm Chenier settings each side of the stone. With a flat parallel shouldered shank.
22	2.24	Make an octagonal plate cluster with raised corners for tapered baguettes. Using 9mm x 7.5mm trap or Emerald cut. 4 x 3mm x 3mm x 1.8mm tapers & 10 x 2.5mm round. Size L.
23	2.23	Make a stylised fern leaf brooch with handmade catch and pin
24	2.22	The oval basket back cluster.
25	2.20	Using the 3mm x 2mm "D" shape wedding ring from Exercise 2.19, size up the ring three sizes by the addition of a dovetailed solder joint. Size down five sizes. Stretch up two sizes. Add stabilisers.
26	2.19A	Tempering a Sizing Punch
27	2.19	Make 6 half round wedding rings, 2mm, 3mm, 4mm, 5mm, 6mm and 8mm x 2mm. Then make a series of steel ring sizing punches.
28	2.18	Make a simple ring with a half round shank that has 5 x 3mm square stones on the top. Each stone divided by the same width of metal as the outside rim.
29	2.17	Make a stylised bird in wire
30	2.14	Making a wooden master & creating a Cuttlefish Casting – Short Lecture only
31	2.35	Design and make a textured master pattern for a Tapered Ring. Finger size "Q"
32	2.13	Costing the tapered ring for sale.
33	2.6	Octagonal 4 claw basket dress ring with a 3mm flat parallel shoulder. Shank size "O".
34	2.2	Classic 3 stone organ pipe setting, crossover ring.
35	2.34	Grain Setting
36	2.36	Wax carved signet ring with pierced insignia. Size P on the finger.

General Knowledge and Design Exercises	
2.38	General Knowledge – OSH – Safe practise.
2.39	General Knowledge - Workshop Etiquette.
2.40	General Knowledge – Recovery of Metals.
2.41	General Knowledge - Keeping the workshop clean.
2.42	General Knowledge - General Knowledge.
2.43	General Knowledge – Gemmology.
2.44	Design and Creation.

View of workshop

Course Content for 2nd Year of Diploma Course

Exercise Description: The oval basket back cluster.

Exercise Number: 2:22 | Version: 1:2

General Notes:

- ♣ This ring would in most cases be made with platinum or a platinum/palladium alloy white gold head, and the bezel and shank in 18ct yellow gold.
- ♣ For this exercise we shall take a centre stone of 9mm x 7mm oval and ten outer stones of 3.00mm diameter.
- ♣ For the best results from this style of cluster, the general rule is; use stone combinations that leave as little metal showing as possible. The centre stone in this cluster can be claw set or rub over 'Roman' set. For this exercise we will claw set the central stone.
- ♣ Workshop metals practise. If you were using precious metal, you would clean out your skin and sweep down your bench, between each metal change. This will keep your white gold or platinum lemel separate from the 18ct .750 yellow gold.
- ♣ Clusters as a general rule do not need fancy shoulders. The head of the ring is the main feature of the ring and most shoulders will fall down at a steep angle from the head. For this reason most classic clusters have either hammered up knife edge or 'open up' spear type shoulders.

Time allocated: 20 Hours

References:	Master Sample 2:22
Moderation / Assessment Notes:	
Schedule A	All categories listed on the Assessment Record
Average required to pass	85%

Element	Exercise Description	Evidence Required
22.1	Stone lay out. Lay out your stones in a plasticine box, with the stones touching each other.	♣ The exercise has a tolerance of plus or minus 0.1mm. There is no allowance in ring sizes. The ring will be measured through the middle of the ring. Stone settings & stone holes must fit the stones supplied for the exercise. ♣ The student must demonstrate the making of an exercise to best standard practise. All procedures are to be carried out in accordance with the current OSH System. Unsafe practises will have an impact on final marks. ♣ The students must have control and demonstrate accuracy in the use of the piercing saw as a file. They must achieve a clean sharp finish to their work and be able to cut as close to, but not over, the line of design. ♣ The exercise will be assessed on cleanliness of job, crispness of cut, evenness of surface & accuracy of shape. ♣ A good solder join must be invisible. The student must demonstrate this in their work. Too much or too little solder, pinholes & cleanliness of joins will impact on final marks
22.2	Head construction. Top plate. Mill down a piece of silver plate 1.2mm thick and large enough to mark out a head that in this case will be about 18mm x 16mm wide. This top plate would be made in platinum or white gold in most cases. If you are cutting this head from a much larger piece of plate, be sure to mark out the oval top plate in a way which will use the plate as economically as possible, leaving as little wastage as is practical. If the cluster head has much smaller stones than this exercise, for example, 5mm x 7mm 0val with 2mm outer stones, then you can drop the top plate to 1mm or 1.1mm in thickness.	
22.3	Mark out the oval outer edge of the cluster about 1.5mm larger overall than the total mm spread of the stones in the plasticine. To make this job simple but accurate, use a drafting template of ovals.	
22.4	Marking out. When you have selected the best oval shape and size from your template, scribe on the outer oval with a needle in a pin vice or a fine scriber. Then scribe in the centre lines top and bottom and side to side. Be sure your do this with great care & accuracy. When you have finished you should have only 2 lightly scribed lines that bi-sect the top plate perfectly.	
22.5	Centre Stone. Next mark out the centre stone's dimensions on the plate using dividers and scribe its oval onto the plate, using the templates.	

22.6	Outer Stone Divisions. Using your dividers mark out along the outer edge of the top plate the divisions for the ten stones. The ring head will lie along the finger. Be sure to have 1 stone top and bottom of the oval. If you do this job regularly the best method of quickly marking out your stone divisions is to use a template. You then simply cut out your oval top plate and place over the template and scribe of the divisions. Make a template once & use it for a lifetime.	♣ The exercise will be assessed on the fitting of the components to each other & the all finished appearance. ♣ The work will be assessed on the stones position, & their shape & size, relative to the stones used for the exercise. The shape & quality of the back holes; & any damage done to the front surface, in the production of the back holes & the overall finished appearance. ♣ The exercises will be assessed on the form & accuracy & the overall finished appearance. ♣ The frugality of metal is essential so that waste is minimalised. The student must demonstrate care in the collection of lemel & scrap metal. ♣ Time is set & assessed on each exercise. The students must demonstrate time usage on the job sheet.
22.7	Doming. Having marked out your stones and cut out your top plate, you anneal your plate to ensure it is soft and using a large domer or a polished coach bolt, shallow dome it in a doming block or a lead cake. (If using lead be sure to put a sheet of paper or plastic between the metal and the lead).	
22.8	Checking and correcting the shape. Take your domed top plate to your flat iron and tap down the top until all its outer edges are in contact with the flat iron. Put your top plate onto a motorcycle valve stem or your flat iron, hold it up to the light and ensure that its silhouette is equal in all directions. (A valve stem is ideal for this job).	
22.9	Cutting out the centre stone. Drill a hole 1.5mm - 2mm inside the centre stone oval and cut out the stone hole with your piercing saw, so the stone girdle sits 1.5mm -2mm above the surface of the top plate.	
22.10	Drilling outer stone holes. Centre pop all the outer stone holes and drill ACCURATELY between the scribed divisions.	
22.11	Opening the stone holes. Open up the holes with your piecing saw. (Why the saw and not a cone burr? Because it is faster, and you have more control over the placement of the holes). Until the stones girdle's sits down level with the plate. If the job has been marked out correctly this should mean that the outer stones should all but touch and there should be about 1mm or a little less between the stone and the outer edge. When viewed from above, the outer stones should appear to touch the centre stone. Clean burs from back of the stone holes with cone bur. This helps when marking out the fancy back holes.	
22.12	Scalloping the top plate. At this point you file off any surplus metal from the outer edge of the top plate. You need no more than 0.5mm to 0.7mm maximum outer rim to stones.	
22.13	With your dividers mark round the stone holes as a guide to your scallops.	
22.14	With your piercing saw cut in the scalloped edge. Cutting from the outer rim down to the centre 'V' of the scallop from both sides. To complete the scallops, file with a cut back three-square needle files coarse & fine, to give an even clean fluted edge. It is important that when you're scalloping the edges that you keep an over-view of the whole head shape, (half close your eyes to see just the silhouette), that is emerging from your work.	
22.15	After taking the bulk of the metal with the saw, take a small 3 square needle file and bevel the edge of the metal to give a guide to how much more you need to take away, to achieve a symmetrical look to the top plate. When satisfied this is correct, take a cut back large three-square needle file and rip the rest off with Speed & confidence.	

22.16	Dovetailing the claws. Cut in your six dovetail slots around the central stone, to take the claws. Use a large saw blade for this job. For example no 2. It is quicker and will produce a clean dovetail. The dovetail slots should be angled to conform to the central stones seat, and they should be narrower at the bottom to prevent the claw from pushing through the top plate and to ensure a better fit. Draw down some round wire .9mm and flatten in the mills to .7mm. Hammer or file a dovetail on the end of the wire and fit into the head. Repeat until all claws are fitted and hard solder into place. Remove all protruding claw ends underneath the plate, rubber wheel, or emery paper to a fine finish.	
22.17	Back holes. Open up the back holes of the outer stones with your saw. (I usually give myself some rough scribed lines to work to).	
22.18	Basket Back Bezel. Make a second oval plate the same size as the top plate in 1.2mm plate.	
22.19	Doming the basket. Anneal it and dome it much higher than the top plate. When the domed bottom bezel plate fits exactly inside the top plate's outer diameter, it is the correct size. You may have to tap in the sides to make it conform to the top plate's shape, but when finished they should fit together neatly.	
22.20	Correcting the shape of the basket. With a large flat hand file make the top surface of the domed bezel flat.	
22.21	Joining the two halves of the head with Shellac. With shellac flakes stick the two halves of the head together by gently heating the shellac. When the two halves are neatly together, cool in cold water. Remove any surplus shellac from the out side of the cluster.	
22.22	With your saw and with great care, remove the scallops in the top surface of the bezel. Clean up the scallops with a watchmaker's 3 square needle files, until the bezel is the exact same shape as the top plate. To achieve this well your bezel must sit exactly under the top plate's outer edge when it is shellacked together. Too small and you risk the outer edge of the top plate when you file in the scallops on the bezel, too large you will have trouble making the correct pattern emerge from the bezel.	
22.23	The location mark. With your saw cut a mark on the side of the head where the shank will cover it, on both halves of the head. This is so you can easily locate which side matches which, once you have removed the shellac.	
22.24	The finger shape. With the two halves still joined, file out the finger shape from the bottom of the head the same size, as the finished ring requires. For example, ring size M, head size M. To check accuracy of your finger's sizes arch's direction, place head on size stick and tap the stick until the head is sitting along the stick. If the top and bottom hole are not sitting along the centre of the stick, correct the direction of the half round bottom side of head. Also check with your Vernier gauge or dividers that the finger size arch is central from both directions. Failure to check this can result in your head leaning over at an angle on the finger.	

22.25	Bezel Depth. The depth, to which you cut your finger size, depends on whether the ring is to be high on the finger or low. If the central stone is very deep the bezel must be deep enough to prevent its culet (bottom tip) from touching the finger. For this exercise we will file down the half round groove with a coarse ring maker's half round file until it just breaks through the metal.	
22.26	Marking out the basket. Now it is time to mark out the bottom bezels pierced design. (I scribe my design on with a needle, free hand and clean up the design by eye with a fine saw after the initial piercing work is done).	
22.27	Cleaning away the shellac. Heat up the head with your blowtorch and burn away the shellac, and pickle clean. With care pop punch the areas of the design that are to be pierced away. Be sure you drill where you do not invade the metal area to be left in the design.	
22.28	Piercing the bezel. With your saw, and a 3.0 blade (the larger the blade the more accurate a line it will keep) cut out the design. Always when doing this kind of job look for the Overall pattern not at the individual area that you are working on. To see this pattern emerging from your piercing, half close your eyes and look at the black and white of the design alone. This will quickly show you where more metal should be removed from, to make the design accurate and pleasing to the eye. In this exercise we will give another dimension to the piercing, using a fine watchmaker's 3 square needle file give some form to the pierced pattern, and finally after the bezel has been emery papered with 600 & 1000 we will MILL GRAIN the edges (using a 12 or 14 setter's mill grain wheel) to add a final touch of decoration.	

22.29	Assembling the head. Polish the inside backs of both halves of the head. If this were being made in gold you would now coat the polished area with a solution of BORACIC ACID powder and methylated spirits. Ignite the mixture with your blowtorch and repeat until each back has a thin transparent glaze over its entire inner polished surface. With a fine flat file remove the glaze along the tips of the scallops and using your reference mark bind the two halves together with binding wire. Flux along the joint, blow off the surplus flux and place one tiny paillon of solder beside each scallop. Warm up with care; replace any pallion that jump away and heat with a fluffy flame until the solder runs into the joints. If any fail to solder or they need a little more solder to make a good joint repeat the operation, BUT DO NOT PICKLE THE JOB OR YOU WILL TAKE AWAY THE BORACIC ACID THAT IS PROTECTING YOUR POLISHED BACK. For our silver exercise this is not important but in gold it is very important for it is impossible to re-polish this area inside your basket back once it is soldered together. (If your pickle your job, the only solution it to strip the job or electrolytically polish the job on its completion, but this is never as good as a pre-polished finish). IN A GOLD RING YOU WILL NOT PICKLE THE JOB UNTIL THE FINAL SOLDER JOIN IS COMPLETE. Should you find it necessary to pickle the head, you must re-apply the Boric Acid again to protect the polished surfaces.	

Outcome:
This Exercise introduces the student to the multiple stone cluster ring. The size of the head is defined by the layout of the stones. Many jewellery jobs especially those classic styles, where the stones are arranged with the minimum of metal showing, the successful completion requires this first step of stone arrangement to be very accurately set out. For the first time the student is confronted with a pierced bezel that has to conform to a finger size. Also for the first time the student has to 'Dovetail' claws into place.

Course Content for Year Two Diploma Course						
Exercise Description: The oval basket back cluster						
Exercise Number: 2:22			Version: 1:2			
Start date:			Time allocated:			
Name:						
Element evidence			Description Not to Scale	Tick	Time taken	Tutor
22	TO	22		o		
22	TO	22		o		
22	TO	22		o		
22	TO	22		o		
22	TO	22		o		
22	TO	22		o		

Maximum Marks	Marking Schedule: A	Exercise Assessment Mark
	Dimensions	
	Workshop practise & OSH	
	Saw work	
	Filing	
	Soldering	
	Construction & Procedure	
	Stone Opening	
	Interpretation	
	Metal usage	
	Time	
100 Marks available	Total marks	
85 Marks to pass	Total %	

Student to indicate actual hours spent on the job.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning					
Afternoon					

χ Extra Metal issued: _____ Grams

Assessors Comments:

Course Content for 3rd Year of Diploma Course		
Local Course Exercise List:		
Order	**Exercise**	
1	3.8	Make a Feather Pattern and Pippin diamond ring with bow shoulders.
2	3.5	Make a round coronet cluster ring.
3	3.4	Make a round wire back cluster ring.
4	3.10	Make a 'V' claw cluster for a large oval cabochon stone 12mm x 10mm or larger, with 20 to 30 small diamonds surround.
5	3.7	Make an oval coronet cluster with pear-shape stones set top and bottom and to each shoulder.
6	3.2	Design and make a diamond set bracelet reflecting 21st Century design.
7	3.9	Design and make a Parve' set dress ring to compliment a 10mm x 8mm oval centre stone.
8	3.11	Design and make a double clip and frame.
9	3.6	Design and make a freeform cluster ring, as an assembly of four claw settings, on a wire frame.
10	3.3	Design & make a ring, earrings, necklace or pendant to match the 21st Century design bracelet in Exercise 3.2
11	3.1	Design and make a classic gem and diamond set bracelet.
12	3.12	Design and make a spectacular 'Master Piece'.

General Knowledge and Design Exercises	
2.38	General Knowledge – OSH – Safe practise.
2.39	General Knowledge - Workshop Etiquette.
2.40	General Knowledge – Recovery of Metals.
2.41	General Knowledge - Keeping the workshop clean.
2.42	General Knowledge - General Knowledge.
2.43	General Knowledge – Gemmology.
2.44	Design and Creation.

View of workshop

Course Content for 3rd Year of Diploma Course		
Exercise Description: Design and make a classic diamond set bracelet in the Art Deco style.		
Exercise Number: 3:2		Version: 1:3
General Notes: Due dates: Design approved by: 8th February 2007 Master pattern completed by: 8th March 2007 Final due date: 30 March 2007		
Moderation / Assessment Notes:		
Schedule:	All categories listed on the Assessment Record	
Average required to pass	85%	

Element	Exercise Description	Evidence Required
2.1	The student will study classic bracelet forms and produce a design. Working accurately to an average length of 185mm, you must include in the design provision to add a half-link for a larger wrist.	♣ **SCHEDULE: B** ♣ All categories in this schedule. ♣ **SCHEDULE: A** ♣ All categories in this schedule.
2.2	Produce working drawing of the bracelet and if required templates for the production of the linkage.	
2.3	If the bracelet is to be cast, you must produce master patterns and the rubbers required.	
2.4	If the bracelet is to be entirely hand made you will need to make all the links ready for assembly and setting.	
2.5	Design a hidden box catch.	
2.6	If the bracelet is to be set, the setting will be done prior to assembly where possible.	
2.7	The bracelet will be finished to a high polish and plated if required.	

Bracelet made by Andre Pankhurst

Outcome:

The student will use some of the jointing knowledge from Exercise 3.1 pieces to produce a complex Classic diamond and gem set bracelet. The student will design the link shapes, the jointing form and the distribution of the stones. The student will design a hidden box catch on Chenier runners with a stone set button.

Course Content for Year Three Diploma Course						
Exercise Description: Design and make a classic diamond set bracelet.						
Exercise Number: 3:2			Version: 1:2			
Start date:			Time:			
Name:						
Element evidence			Description Not to Scale	Tick	Time taken	Tutor
Due date:	23/03/06		Design approved by Peter	o		
Due date:	6/04/06		Master pattern completed by	o		

Maximum Marks	Marking Schedule: B	Exercise Assessment Mark
10	Design research	
10	Thumbnail sketches	
10	Development of the design	
10	Finished art	
10	Technical notes on construction	
25	Dimensions	
25	Overall finished appearance	
100 Marks available	Total marks	
85 Marks to pass	Total %	

Maximum Marks	Marking Schedule: B	Exercise Assessment Mark
15	Dimensions & marking out	
5	Procedure	
5	Doming	
15	Saw work	
10	Filing	
10	Soldering	
15	Construction & Procedure	
10	Stone Opening	
5	Interpretation	
5	Metal usage	
5	Time	
100 Marks available	Total marks	
85 Marks to pass	Total %	

Student to indicate actual hours spent on the job.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning					
Afternoon					

χ Extra Metal issued: _____ Grams

Assessors Comments:

Course Content for 3rd Year of Diploma Course		
Exercise Description: **Design and make a spectacular 'Master Piece'.**		
Exercise Number: 3:12		Version: 1:5
General:	♣ The final submission must include all categories of "Evidence required." ♣ The student will make the design, only after the design has been approved by the Principal Tutor & the External Moderation/Assessment Team. ♣ It must be of an innovative design. Stunning when worn and should reflect 2007. ♣ Must be wearable jewellery. ♣ No more than 20% of the work can be work that is out-sourced i.e.; cast ♣ If the design has a "main piece" or "component" it must be hand made.	
Moderation / Assessment Notes:		
Mod/As Schedule Masterpiece	All categories listed on the Assessment Record	
Average required to pass	85%	
Element	Exercise Description	Evidence Required
12.1	The design MUST incorporate: ♣ Gem setting ♣ Pave settings with back holes ♣ Be at least 60% precious metal	All categories of Moderation/Assessment Schedule; Masterpiece 3:12 apply.
12.2	The design MAY incorporate: ♣ Any non-traditional material. Ie: wood, ebony, bone, semi-precious stones. ♣ Earring clips, etc, that combine to make a necklace or bracelet. ♣ A suite of jewellery. Ie; ring, bracelet/bangle, earrings, necklace, brooch etc. ♣ Any combination of gem/s.	All categories of Moderation/Assessment Schedule; Masterpiece 3:12 apply.

Graduation piece made by Shu-Ju Angela Lee

2007 Schedule of due dates and work to be assessed		
Students:	Assessors:	Assessment:
Term 1: 30 March	2 April	Design Research and thumbnails.
Term 2: 18 May	21May	Supply thumbnails. Begin to work on final design / Hand on technical content and working drawing. Discuss design prior to commencing masterpiece.
Term 3: 16 July	16 July	Workshop assessment.
Term 3: 7 September	10 September	Finished Art (A3 size). Practical piece progress assessment.
Term 3: 24 September	24 September	Workshop assessment.
Term 4: 15 October	15 October	Workshop assessment.
Term 4: 16 November -		All work must be handed in for final assessment by 4pm.
	19 November	Assessor's final assessment to be made by 12pm. Followed by final moderation meeting.
Term 4: 23 November	23 November	Feedback to Students

2006 Graduation pieces top corner clockwise: Asher Freeman, Elizabeth Johns, Penelope Harwood, Andre Pankhurst

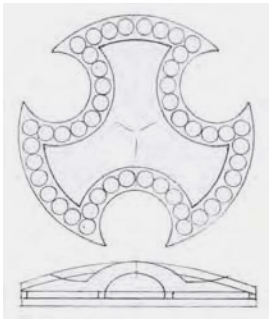
Outcome:

The masterpiece is the final exercise that will display the student's ability as both as an innovative designer and superb craftsman or woman. The design must encompass both original ideas and innovative and complex technical problems. This is the work upon which the student will gain both his/her reputation, and his/her final marks for this 3 year course. All aspects of the final piece will be expected to be finished to the highest possible professional standards.

Course Content for 3rd Year of Diploma Course			
Exercise Description: Design and make a spectacular 'Master Piece'. **External Moderation/Assessment of Masterpiece**			
Design Exercise Number: 3:12		Version: 4 Progress marking schedule: 1	
Name:			
Evidence Required:			
Maximum Marks	Marking Schedule: B	Exercise Assessment Mark	
40	Design research, Thumbnail sketches and Design Development		
30	Technical Notes: Construction and Dimensions		
20	Finished Art		
10	Overall presentation of design work		
100 Marks available	Total marks		
85 Marks to pass	Percentage		
Maximum Marks	Marking Schedule: A	Exercise Assessment Mark	
15	OSH Procedure		
75	Construction & Procedure Includes: Dimension & marking out Saw Work & stone holes Filing Soldering		
10	Interpretation		
100 Marks available	Total marks		
85 Marks to pass	Percentage		

Assessment Comment	Signed / Dated
Assessor 1:	
Assessor 2:	
General Comment:	

Moderation & Assessment Schedule: A	
General Notes:	
Time	The marking schedule that the school has adopted for its assessment of each practical exercise is based on the marking code of the International Skill's Olympic Organisation. We will only take time into consideration as the student progresses toward graduation in Year 1. For Year 2 & Year 3 students, time will be more critical & will be set for each exercise.
Filing Exercises	For exercises that require no soldering or stone opening the marking tutor can drop the sections of the schedule that are inappropriate.
Enamelling or Chasing Exercises	Where specialist skills are employed in the exercise such as enamelling or chasing, the relevant standards will apply.
Maximum Marks	Each exercise element will be allocated maximum marks for the student to demonstrate competency in. Please refer to the Element Record for these marks.
Average required to pass	85% of total marks available.
Moderation / Assessment Notes:	
Dimension & Marking out	The exercise has a tolerance of plus or minus 0.1mm. There is no allowance in ring sizes. The ring will be measured through the middle of the ring. Stone settings & stone holes must fit the stones supplied for the exercise.
Work Practise & OSH	The student must demonstrate the making of an exercise to best standard practise. All procedures are to be carried out in accordance with the current OSH System. Unsafe practises will have an impact on final marks.
Doming	The exercise will be assessed on the correctness of the shape in relation to the design.
Saw Work	The students must have control and demonstrate accuracy in the use of the piercing saw as a file. They must achieve a clean sharp finish to their work and be able to cut as close to, but not over, the line of design.
Filing	The exercise will be assessed on cleanliness of job, crispness of cut, evenness of surface & accuracy of shape.
Soldering	A good solder join must be invisible. The student must demonstrate this in their work. Too much or too little solder, pinholes & cleanliness of joins will impact on final marks.
Construction & Procedure	The exercise will be assessed on the fitting of the components to each other & the all finished appearance.
Stone Opening	The work will be assessed on the stones position, & their shape & size, relative to the stones used for the exercise. The shape & quality of the back holes; & any damage done to the front surface, in the production of the back holes & the overall finished appearance.
Interpretation	The exercises will be assessed on the form & accuracy & the overall finished appearance.
Metal Usage	The frugality of metal is essential so that waste is minimalised. Being vigilant about the wastage of wire & Chenier forms. The student must demonstrate care in the collection of lemel & scrap metal.
Time	Time is set & assessed on each exercise. The students must demonstrate time usage on the job sheet.
Enamel	Epoxy: The student must keep the enamel within the Cloisonné. The enamel work must match the overall design. Colorit: The student must apply the enamel to a 0.6mm maximum depth, to maintain an even distribution of colour. The enamel work must match the overall design.
Chasing	The student must demonstrate evenness in the depth of the lines. The chasing work must match the overall design.

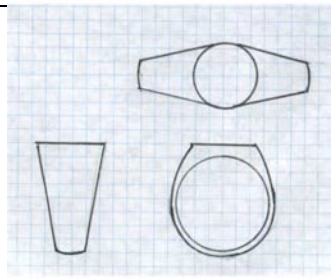


Moderation & Assessment Schedule: B	
General Notes:	
General	This section of the course is based on the German & Swiss Apprenticeship system of compulsory ring making and diamond mounting exercises. In addition to exercises based on classic jewellery trade design, there will be 1 design and make exercise each term. These exercises will ask the student to design and make an item to a given theme.
Assessment	Assessment will be split between the design, using this schedule, and the make of the item. Refer to Schedule A to assess the actual piece made by the student.
Maximum Marks	Each exercise element will be allocated maximum marks for the student to demonstrate competency in. Please refer to the Element Record for these marks.
Average required to pass	85% of total marks available.
Moderation / Assessment Notes:	
Design Research	The student will seek references and theme information about the type of jewellery. If the theme is historic then the student will look for examples of jewellery made in that particular era or geographic location, what type of technology they possessed and the type of materials that were employed in their jewellery.
Thumbnail sketches	The student will present a collection, (at least 10), of ideas that could be expended into working drawings.
Development of the design	The student will choose 1 theme from the thumbnail sketches and develop the original sketch into a working drawing that details construction methods, metal and gems. The drawing must state that it is *to Scale*.
Finished art	The student will take the working drawing and render it in paint, pencil or pastel, into a presentation style form of finished art.
Technical notes on construction	If the design job is of a complexity that requires additional explanation then the student will supply technical notes to support this.
The manufacture and assembly of components.	The student will be assessed on the way the job is processed from the manufacture and marking out of components to final assembly.
The construction of the job	The student will be assessed on the procedure they undertake to construct the job.
The dimensions	The student will be assessed on the accuracy of the constructed piece against the dimensions in the working drawing. Allowable tolerance 0.5mm.
The overall finished appearance	The finished jobs overall appearance. The cleanliness of the construction to the neatness of the solder joins. The student will work towards a clean crisp appearance of the professional job.

Art Nouveau buckle made by: Asher Freeman

Moderation & Assessment Schedule: C	
General Notes:	
General	The student will be given a trade related subject, which they have to research and produce an illustrated essay on the subject matter. Research into any of these subjects is an excellent learning tool. This is an opportunity to learn about trade related subjects in such a way that it will enrich and possibly influence how to approach your own work.
Plagiarism	If plagiarism is easily recognised in the students work then penalty marks will be applied.
Element Evidence	The student must supply 1½ pages maximum on each element. This content must be concise, condensed and can be presented in "points/ bullets" format.
Maximum Marks and Penalty Marks	Each exercise element will be allocated maximum marks for the student to demonstrate competency in. Please refer to the Element Record for these marks. If due dates for handing in an essay are not upheld then a penalty of 20% will be deducted from the final mark.
Average required to pass	85% of total marks available.
Moderation / Assessment Notes:	
Physical & Chemical Properties	The student must include the atomic weight, chemical composition & malleability of metals. The specific gravity, refractive index, cleavage plane, & crystal structure of gemstones where applicable.
History	The student must include mankind's artistic & technological development, and provide related material.
Geography	Where applicable, the student must include the original location of the gem deposit, metal ore, and provide related material.
Geology	Where applicable, the student must include the origins of the metal ore or gem deposit & the natural forces that created them.
Production	The student must include the methods used both traditional and modern for the production of the subject.
The market & applications	The student must include the modern applications of the subject and its economic, political, technological effects and its distribution on the world market.
Stories & Folk lore	There is often historic tales associated with the subject. Their so-called "magic" properties & the place they have played in everyday life. Religious ceremonies or other rituals. The stories of people who found, wore, stole, collected or whose life the subject influenced. Where applicable the student must provide related material.
Illustration	The student must demonstrate a use of drawings/sketches to support information given in the essay.
Graphs	The student must demonstrate a use of graphs to reinforce information used in the essay.
Bibliography	The student must provide a listing of reference books used to complete the essay.
Contents	The student must provide a listing of the essays' content.

Butterfly pendant made by: Sarah Winchester



Written Examination, Year 3, Term 4

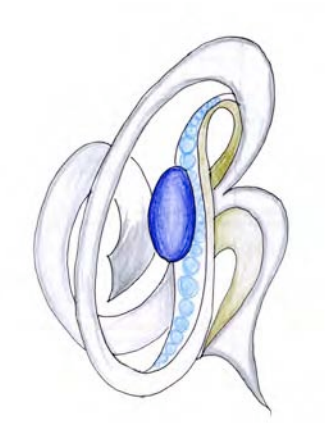
1 Draw a simple round Gents Signet ring as per plan and elevations in sketch supplied, as a ¾ perspective projection. Showing construction box.
2 Draw 20mm high sketches of the Feather pattern and Organ Pipe Settings six claw Diamond or Gem settings. One must have twin claws.
3 Draw a mind map or design list of a pair of identical Twenty Fifth anniversary combined and entwined Monogram pendants. The names of the couple are David and Jenny. The pendant is mainly gold, but has some small diamonds that are bead set in white gold. He is a keen Gardner, she is an Artist.
4 Draw 10 quick thumbnails to show clients, from the question three mind map. Show three differing forms, of the way the chain could hang.
5 What major influence brought about the change in European Art and design in the 1890's?
6 What was this era called and name three of its famous jewellery designers.
7 Name the tools and equipment required in Chasing, and describe the process in step-by-step, detail of chasing the veins on a silver leaf.
8 Draw the side view of a Brilliant cut Diamond, and name all of its main features.
9 Describe the method of mining, and the geological name for the type of Gold deposits, that are unique to the west coast of the South Island of New Zealand.
10 Why is West Coast Gold ore more valuable than Coromandel Gold ore?
11 Describe or list, the interaction and procedures you would take, between you and a client, who brings you a very large Emerald and diamond ring for re-tipping and sizing. The client has enlarged knuckles; what methods of securing the ring on the finger do you advise her to have. What extra charges will you warn her she may have to face. Describe the take in procedure, and draw up a job packet for this job; and fill in all the information you will require, and the client will take away with her. What precautions will you take before accepting this job?
12 List all the factors and procedures, you have to take into account, when making an eternity ring with princess cut diamonds, set the whole way round the shank. The ring has outer rims of 18ct Gold and a cental section of Platinum, in which the stones are set. List all the factors you need to price the job. What is the difference between the price you might charge, and the value, a Valuer might put on the ring?
13 What are the three main qualities that Gem Diamonds are graded on for sale?
14 What or who is G.I.A and H.R.D. and the C.S.O?
15 Who invented the Modern Brilliant cut, and when and where did this take place?
16 What power of Loupe is used to grade diamonds? Give the examples of what natural marks we might find inside the diamond crystal. Give an example of a man made mark you could find within the crystal?
17 Give an example of a graded description, for a very clean fine coloured gem that has no visible marks and is cut to the exact angles of a perfect Brilliant?
18 Give an example of a graded description, for a very poor diamond that has white marks visible with a loupe and is cut to angles that fall out side that of a perfect Brilliant?
19 Which countries are said to trade in 'Blood' diamonds, and what did this trade support and what has the diamond world done to suppress this trade.
20 Who was Cecil Rhodes and Barney Barnato, what mine and when, did they take over; and what organisation did they found. What is it known as today, and what function do they carry out each month in London?
21 LIST all tools and procedures and sketch each section and give a step by step account of making an oval, 11 stone basket backed cluster head, with curved finger shape bezel. The cental stone is a 6mm x 4mm oval claw set with 10 claws, and the 10 x 2mm round outer stones are grain set. ***Do not write up the shank.***
22 List all the factors you will require, to arrive at the retail value of a piece of jewellery. This question requires you to list all the vital information required by a valuer, not the procedure of valuation it's self.
23 When setting up your own business, what books must you keep in order to run the business.
24 Every two months you must make a G.S.T return, what two factors do you have to account for when calculating this tax?
25 To set up a small home workshop, what are the minimum essential tools and plant you may require, to begin working. Draw a quick sketch plan of such a workshop and name each essential work station and larger pieces of plant.

Design Examination
Year 1, 2, and 3, Term 1

In this design project you are asked to design a Pendant for a 25th Anniversary; with a long oval Sapphire 9mm x 5mm and twenty five Diamonds. The client's names are Barbie and Ken and they want some where on the design their initials. The clients will require thumbnail sketches of several differing kinds of design and then will choose a design for finished art. The client has not specified any other preferences, other than she wants a design that does not look as if it has come from a jewellery chain store. In your final sketch you will detail which metals and all the dimensions of key parts, as if the ring were to be made by some other jeweller.

Time allowed One and a half hours for Thumbnail sketches. At this point the tutor will become the client and choose one of your thumbnails to be drawn up as a working drawing, with all the choices of metal labelled, and the dimensions shown. The finished art may be coloured with crayon or coloured pencils.
You will have two hours for the working drawing and finished art.

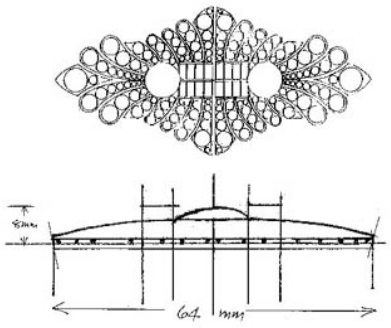
Your marks will be awarded for
Diversity of your thumbnails.
Quality of the sketches.
Originality of the chosen concept.
Quality of your overall presentation.
Conformity to the client's request.



Designed by: Christine Price

Designed by: Samara Wooldridge

Practical Examination, Year 3, Term 1



63mm x 30mm Double Clip.

It is not expected that you will finish this exercise in the two days given for the examination. Your marks will be given on the extent of your progress and in the usual assessment listed below.

Elements of this exercise's skills.
Marking our and procedure. Sharpness of each element. Your interpretation of the design. The accuracy of the 'lights' between elements of the design.
You must not use the diagram as a template. You must mark our your basic shape on metal.

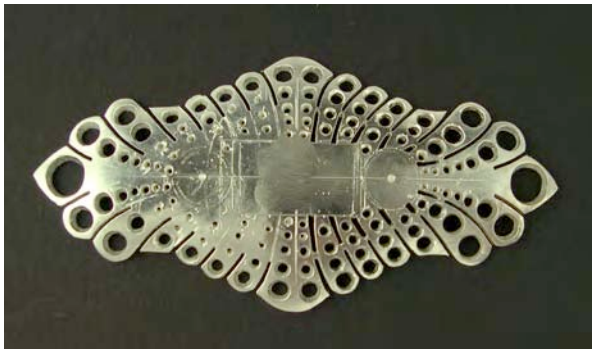
The student will be marked on his or her ability to:

Mark out the shape with out help accurately.
On the accuracy of the basic shape.
The sharpness of the filing.
The accuracy of the stone hole placement.
The quality of the stone opening both front and back.
The accuracy of the bezel construction and its assembly to the top plate.
The quality of the soldering.
The overall appearance of the piece.
Time taken to complete.

You are not expected to reach a stage where the clip mechanism is added.

You must hand the marked out design to the tutor before proceeding with the project.

Outcome of this exercise.
This is just a variation on previous exercises, to hone marking out, doming filing and piercing skills.
The major skill additions in this exercise, is the complexity of the piece and the change in the overall shape, from previous exercises.
This will test the students advances, in the basic diamond mounting skills.



Examination piece made by: Chantelle Povey