

## **PREFACE:**

### **#1 Rule**

**When making your board, you should not use any pre-printed sheets to create either the bent on one side or the signature grids on the other.**

**The only things that should go on your board are sandpaper, ink, polyurethane, and rub on lettering – and perhaps some blood and sweat.**

**DO NOT LISTEN TO TO THE ADVICE OF PEOPLE PLEDGING OTHER  
ENGINEERING HONOR SOCIETIES OR WAYWORD TAU BETA PI  
VICE PRESIDENTS!!!**

**If for some reason your board has on it something besides those listed above,  
IT WILL NOT BE ACCEPTED!!!**

**i.**  
**Tau Beta Pi Initiate Manual**  
Fall 2002

Congratulations on your election. In keeping with Arkansas Alpha chapter traditions, you now must complete a set of requirements in order to participate in Initiation and become full Tau Beta Pi members. Each requirement serves a particular purpose, and each initiate MUST complete ALL requirements to become a member. As an initiate you will:

- Prepare and finish a board bearing the Bent of Tau Beta Pi
- Obtain signatures on your board of advisors, officers, and current members
- Finish a bronze-cast, desktop Bent statue
- Pass the Initiate Test
- Participate in the Initiate Service Projects
- Pay the required Initiation Fee
- Attend the Initiation Ceremony

Each of these will be covered in detail in the following sections.

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### **I. Spring 2003 Initiate Schedule**

<http://comp.uark.edu/~taubeta/events.html>

### **II. General Information**

1) If at any time you have any questions or concerns, please feel free to contact me anywhere you can find me or check the webpage.

Buddy Vernon  
Home phone: 718-3308  
E-Mail: [rcverno@uark.edu](mailto:rcverno@uark.edu)  
<http://comp.uark.edu/~taubeta>

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2) The general purpose of having initiates complete a set of requirements for membership is two-fold: to continue the traditions of the Arkansas Alpha chapter and to ensure that you have the dedication and desire to become Tau Beta Pi members.

3) Attendance at all initiate meetings and projects **is** mandatory. It is your responsibility to see me and make suitable arrangements, preferably ahead of time, if something precludes your attendance.

4) Each semester the chapter makes three awards to individuals in the initiate class. Awards are given for Best Board, Best Bent, and Best Initiate. Best Board and Best Bent awards are obviously given to those individuals with the best-looking board and bent, respectively. The award for Best Initiate is given to the person who is distinguished from the other initiates by their exceptional attitude, attendance, participation, and service. The recipient of the Best Initiate Award receives a cash prize of \$100 the following semester you are enrolled.

### III. Board Preparation

The main purpose of having initiates prepare boards is to require you to meet other members and faculty advisors in our chapter. A precise format for preparing the boards is given; this is to ensure that all boards have a similar appearance in keeping with chapter tradition.

Please read and understand all requirements for the board format before you begin work. Ask questions if something is unclear; my job is to assist you. **The boards are inspected by the President and must adhere to the given format to be accepted. Also, remember, DO NOT USE TRANSPARENT OVERLAYS!!!**

You will need:

- small can, brush-on, fast-drying Polyurethane -- **Do not use spray polyurethanes!**
- several 2" foam brushes
- sandpaper
- (Pen Pack)ZIG Memory System by Millenium (available at Hobby Lobby)
- DECAdry lettering, ←2 with ∞7 and ∞59 (available from me or on the web)
- Also if there isn't any ∞2 and ∞7 lettering, you can use ∞20 instead
- ruler with raised edge
- tack cloth (see "Strongly Suggested")

You will receive a board of red oak which is already cut to the proper outline. One surface of the board is routed such that the edges are beveled or rounded-over; this is the TOP side. The BOTTOM side of the board is NOT beveled.

- Begin by sanding the board smooth -DO NOT round the edges of the bottom side of the board.
- DO NOT stain the board.
- Apply polyurethane and allow to dry thoroughly. **Do not use spray polyurethane; your**

**lettering will curl-up and lift off the board.**

- Sand polyurethane between coats! This helps adhesion between coats and helps to planarize your board.
- Finish the board with a **minimum of two coats of polyurethane before inking.**
- Ink the image of the Bent on the front side of the board and ink the signature areas on the back side of the board using the smallest tipped pen available. If it runs dry, move to the next largest one.
- Using the DECAdry lettering specified, letter your board according to the format on the following pages.
- Apply another coat or two of polyurethane after inking and lettering the board.

Strongly Suggested:

- Get a tack cloth at a hardware store. Wiping your board after sanding with this very sticky cloth will remove sawdust and sanding particles. They are folded many times, so one is plenty.
- Use a raised-edge ruler (e.g. one with a cork backside) to draw your lines; the ink will not spread underneath the drawing edge.
- A fast-drying, gloss polyurethane such as Minwax or Red Devil provides good results. Since these require paint thinner for clean-up, buy plenty of foam brushes (2" wide) so you can dispose of the brush after each coat. These brushes are very cheap (less than 50 cents each.)
- DO NOT ever shake the polyurethane, stir. Some brands even say that stirring is not necessary. Shaking introduces a phenomenal number of air bubbles which stay suspended indefinitely and will end up imbedded in the finish on your board.
- Apply at least three or four coats of polyurethane before you try to ink your designs. If you try to use less than the two minimum coats, 1) your board will not be smooth enough and it will be difficult to draw straight lines and 2) sometimes the ink can penetrate the very thin coats and upon contacting the wood will spread out and soak into the grain. This is very difficult to repair; you must sand back down to bare wood and sand out the stain.
- Start on your board early. If you apply two coats of polyurethane a day (once in the morning and once in the evening) you will allow plenty of time for complete curing of each coat.

Optional Hints:

- ⌚ Using a sanding block or a block of wood wrapped with sandpaper helps speed sanding and produces uniform surfaces.
- ⌚ Always sand wood in the direction of the grain. Use a progression of sandpaper from 120, to 180, to 220 grit. (Individual sheets can be purchased from hardware stores; Walmart only sells packages.) The smoother your board is before you apply the finish, the smoother your finish will be.
- ⌚ Be sure to let your ink dry before moving the ruler or the ink can smear. If you ink outside your lines, sometimes it is better to let it dry. Then you can use a razor blade or X-acto blade and lightly scratch away the ink. You also can take a hard eraser and rub off the ink.
- ⌚ A mirror-smooth finish may be obtained by building up 5 or 6 coats per side then sanding off the equivalent of several coats. The multiple coats builds-up the surface of the board. By sanding off one or two top layers, you sand into a solid layer of polyurethane with no cracks or lines from board grain. **Be sure to allow for adequate curing of all layers before sanding (two coats per day as above and several days before final sanding.)**

#### IV. Board Signatures

- **The President must be the first person to sign your board! He will not sign your board if it does not adhere to the given format or if someone has signed your board already.** Boards will be inspected and signed-off at the 3rd Initiate Meeting (see schedule.)
- DO NOT ask the faculty for signatures until the Faculty Board Signing Party (see schedule.)
- After the Faculty Signing Party, ask the faculty for their signatures only during their office hours.
- Only the Faculty Advisors can sign in the advisors' slots.
- No one can sign your board twice. The boards will be inspected at the final due date and boards with duplicate signatures will not be approved.
- Remember to put at least another coat of finish over your board after obtaining all signatures!
- **I will be the last person to sign your board, and I sign your board after you have submitted it for final review.** In other words, don't worry about asking me for my signature.

#### Helpful Hints:

- ⌚ Attend the board signing parties! Member and faculty attendance is generally very good; take advantage of the situation! **Also, some faculty members will ONLY sign your board at the board signing party and WILL NOT sign it if you miss the party. Take heed.**
- ⌚ With a pencil eraser or equivalent, rub over the signature spot immediately before signing. This helps produce a smooth signature.
- ⌚ Start obtaining the remaining signatures soon after the parties so that you aren't skipping classes in order to finish the board before the deadline.
- ⌚ Get to know your fellow initiates. If you travel around with other initiates, they can help you spot members in other majors that you may not recognize otherwise.
- ⌚ Carrying your board around in a small handtowel or something soft will help keep it from getting banged-up.

#### V. Bent Preparation

Traditional initiate projects have included polishing the various Bents on campus. It seems only fitting, therefore, that each initiate should polish their own personal Bent as a prerequisite to membership in Tau Beta Pi.

The bronze Bent statue you will be given is designed as a desktop paperweight or decoration and is strictly for your own use, i.e. the amount of work you should put into it is determined by your own standards. With a little work, they can be smoothed and polished and can make a very nice memento for your office. The statues are cast from a fairly-soft bronze, so even though they look formidably rough, they are easily sanded or filed smooth.

#### Optional Hints:

- ⌚ Get a slim-taper, triangular-cross-section file from a hardware store or Walmart (around \$4 or \$5.) This file can easily get in tight places and clean inside acute angles.
- ⌚ Brasso metal cleaner and polish or the like can chemically polish and brighten the appearance

of the Bent.

- ⌚ If you know anybody that has jeweler's files, they can come in handy especially in tight spots.
- ⌚ **Do not use a machine sander or Drimel mototool unless you're very good with it. Mistakes in the bent are very hard to remove.**

#### Secret for a Truly-Polished Bent:

- ⌚ Once the rough filing has removed the rough-casted surface, use a series of progressively finer sandpapers to remove scratches from the previous sanding (or filing.) Do not progress to the next- finer grit if you can see scratches deeper than those left by the current grit. A recommended progression is: Fine grit Emery cloth, 220 grit sandpaper, 320, 600, 1000, 1500, 2000. (1000-2000 grit sandpaper is available at automotive parts stores.) **Again, the amount of sanding is up to you.**
- ⌚ Once you have finished the 2000 grit, your Bent is essentially polished to a satin or brushed finish. Get a jewelry polishing cloth (sometimes referred to as a jeweler's rouge cloth) at Walmart, etc. (around \$3.) Rubbing with the polishing cloth will polish the Bent to a bright finish. (The amount of sanding you did will affect the brightness of the finish. Be careful about using Brasso here because some liquid polishes are abrasive and may scratch if your finish is highly polished.)
- ⌚ There are spray lacquer finishes which can be applied to the Bent to keep it from tarnishing. Personally, I prefer to use the polishing cloth occasionally to keep the finish shiny.

### **VI. Initiate Test**

All members are required to pass the written initiate test according to chapter tradition. The purpose of this is to teach you a basic knowledge about the history and structure of the Tau Beta Pi Association.

Included on the following page is a list of sample test questions. If you can answer these questions, you will be adequately prepared for the test. Don't cram the night before. **Writing out the answers to the sample questions and reading over them a few times a day is a well-proven way to successfully study.**

All of the answers may be found in the Constitution and Bylaws and Eligibility Guide and Information about Tau Beta Pi which I will pass out to you with your boards and Bents. The current officers for our chapter are listed on the sheet of Tau Beta Pi Members used for obtaining signatures.

The passing score for the initiate test is 100%. If you do not score 100%, you will be required to re-take the test until you do score 100%. **No exceptions.**

### **VII. Initiate Projects**

Members of Tau Beta Pi are known for their service to others. It is the purpose of the Initiate Projects to have initiates begin their service to others prior to becoming members. The projects usually takes place on a Saturday morning and is not overly strenuous. Past projects have included litter removal and grounds cleanup for the Fayetteville Youth Center.

### VIII. Initiation Fee

The one-time initiation fee of this chapter is \$75.00, payable **before Initiation** to the chapter treasurer. **DO NOT let the inability to pay the initiation be the sole reason which deters you from joining.** Loans and deferred payment options are available through Tau Beta Pi **with sufficient notice.**

This initiation fee will be collected during the 2nd initiate meeting. **Please see the chapter Treasurer as soon as possible if there are any problems with payment of the fee. Almost always these problems may be resolved.** Your fee includes:

Official Bent Key lapel pin (engraved with your name and chapter)	\$ 6.75	
Official Membership certificate	3.40	
Copy of Constitution, Information Booklet	1.00	
BULLETIN subscription	0.85	
4-year BENT subscription		8.40
Expenses of the Association	2.60	
National Initiation Fee	\$ 23.00	
National Convention Assignment	7.00	
Chapter charge for banquet, projects, operations, and chapter functions	45.00	
<b>Total</b>	<b>\$75.00</b>	

### IX. Initiation

As stated previously, to be initiated as a member of Tau Beta Pi, each initiate must have successfully completed all requirements set for initiates including attending the Initiation Ceremony. **Even if all other requirements are completed, you will NOT become a member unless you attend Initiation. Absolutely no exceptions!**

The date and place set for Initiation is stated in the schedule or will be given later. Dress is coat and tie for men, appropriate equivalent for women. **Please arrive a MINIMUM of one-half hour before initiation. Be on time!**