C Program to Implement Non-Preemptive SJF:

```
#include<stdio.h>
int main(){
int bt[10]={0},at[10]={0},tat[10]={0},wt[10]={0},p[10]={0};
int i,j, n,sum=0,total=0,pos,temp;
float avg_tat=0,avg_wt=0;
printf("Enter number of processes:");
scanf("%d",&n);
printf("Enter Arrival Time of process:\n");
for(i=0;i<n;i++)
{
        printf("p%d:",i+1);
        scanf("%d",&at[i]);
        p[i]=i+1;
}

        printf("\nEnter Burst Time of process:\n");
for(i=0;i<n;i++)
{
   printf("p%d:",i+1);
   scanf("%d",&bt[i]);
   p[i]=i+1;
}
```

```
for(i=0;i<n;i++)
   {
      pos=i;
      for(j=i+1;j<n;j++)
      {
         if(bt[j]<bt[pos])
            pos=j;
      }

      temp=bt[i];
      bt[i]=bt[pos];
      bt[pos]=temp;

      temp=p[i];
      p[i]=p[pos];
      p[pos]=temp;
   }

   wt[0]=0;


   for(i=1;i<n;i++)
```

```
    {
        wt[i]=0;
        for(j=0;j<i;j++)
            wt[i]+=bt[j];

        total+=wt[i];
    }

    avg_wt=(float)total/n;
    total=0;

    printf("\n\tProcess\t  \tBurst Time\t    \tWaiting Time\t   \tTurnaround Time\t");
    for(i=0;i<n;i++)
    {
        tat[i]=bt[i]+wt[i];
        total+=tat[i];
        printf("\n\tP%d\t\t%d\t\t%d\t\t%d\t",p[i],bt[i],wt[i],tat[i]);
    }

    avg_tat=(float)total/n;
    printf("\n\nAverage Waiting Time=%f",avg_wt);
    printf("\n\nAverage Turnaround Time=%fn",avg_tat);
}
```

Output:

```
Enter number of processes:5
Enter Arrival Time of process:
p1:2
p2:5
p3:1
p4:0
p5:4

Enter Burst Time of process:
p1:6
p2:2
p3:8
p4:3
p5:4

        Process         Burst Time   Waiting Time    Turnaround Time
        P2              2               0               2
        P4              3               2               5
        P5              4               5               9
        P1              6               9               15
        P3              8               15              23
```

```
Average Waiting Time=5.200000


Average Turnaround Time=9.800000
```